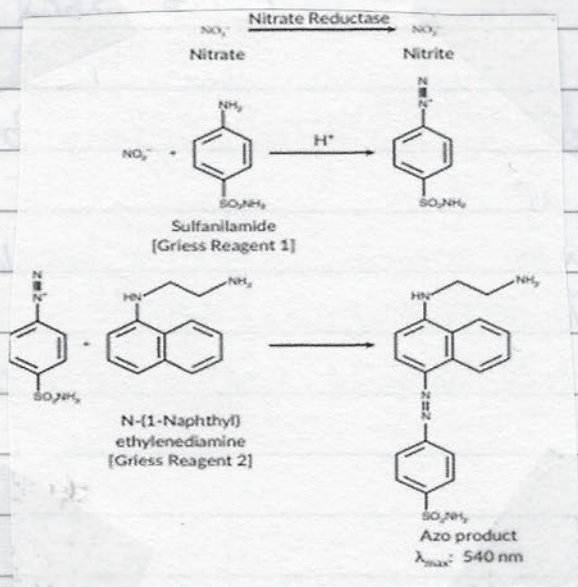


EXHIBIT B13

Part 3



Chemistry of the Griess Reagents

— Preparation

— Nitrate/Nitrite Assay Buffer

- Dilute with 100ml UltraPure water
- Store two months at 4°C

— Nitrate Reductase (LDH method)

- Reconstitute with 1.2ml of Assay Buffer

* Keep on ice during ice

- Store at -20°C , Freeze and thawing of this limited one time.

— Lactate Dehydrogenase Cofactor Preparation

- Reconstitute with 1.2ml of Assay Buffer

* Keep on ice during ice

- * Store at -20°C . Freeze and thawing of this one time

— Nitrate Standard

- Reconstitute with 1.0ml of Assay Buffer
- Store 4°C 4 months.

— Lactate Dehydrogenase

- Reconstitute the contents of the vial with 1.2ml of Assay buffer
- * keep on ice during use
- store at -20°C , one time use

— Griess Reagent R1 and R2

- Ready to use. no add
- store at 4°C

— NADPH

- Prepare a 1mM solution of NADPH in assay buffer.
- $\geq 1\text{mM}$ solution of NADPH will required.
- $0.017\text{g} = (833.4\text{g/mol})(0.001\text{M})(x\text{L}) \Rightarrow x = 0.02046$
 $= 20.4\text{mL}$

* Need media blance for each type medium
 — RPMI have high Nitrate ~~ta~~ Levels.

— Plate Set up

Sample ID	
356	EL1 Unt
357	EL1 5 ug/ml Talc
358	EL1 20 ug/ml Talc
359	EL1 100 ug/ml Talc
360	SKOV-3 unt
361	SKOV-3 5ug/ml
362	SKOV-3 20ug/ml
363	SKOV-3 100ug/ml
364	TOV112 Unt
365	TOV112 5 ug/ml Talc
366	TOV112 20 ug/ml Talc
367	TOV112 100 ug/ml Talc
368	A2780 Unt
369	A2780 5 ug/ml
370	A2780 20 ug/ml
371	A2780 100 ug/ml
379	FT33 unt
380	FT33 5ug/ml
381	FT33 20 ug/ml
382	FT33 100 ug/ml
383	NOE unt
384	NOE 5 ug/ml Talc
385	NOE 20 ug/ml Talc
386	NOE 100 ug/ml Talc

- Standard preparation

- In 1.5ml tube, add 0.9 ml Assay buffer and 0.1 ml reconstituted nitrate standard and vortex. (Now 200 μ M)
- Use this standard for the preparation of standard curve as described below

Well	Nitrate Standard (μ l)	Assay Buffer (μ l)	Final Nitrate Concentration (μ M)*	Nitrate per well (nmoles)
A1, A2	0	60	0	0
B1, B2	5	55	5	1
C1, C2	10	50	10	2
D1, D2	15	45	15	3
E1, E2	20	40	20	4
F1, F2	25	35	25	5

Assay

1. add standards to wells - as stated above
2. add 200 μ l of Assay Buffer to Blank well
3. add 60 μ l of sample the wells.
 - add 60 μ l media control
4. add 10 μ l of the freshly prepared NADPH Solution (1 mM) } standard
samples
5. add 10 μ l of the Nitrate Reductase mixture.
6. Incubate at room temperature 40 minutes
7. add 10 μ l of the cofactors solution and 10 μ l of the LDH solution
8. Incubate at room temperature for 20 minutes
9. add 50 μ l Griess Reagent R1
10. add 50 μ l Griess Reagent R2
11. 10 minutes at room temperature
12. Read at 540 nm or 550 nm

Calculation

- Subtract the blanks
- Plotting the standard Curve

$$\Delta [\text{Nitrate} + \text{Nitrite}] (\mu\text{M}) = \left[\frac{A_{540} - (y\text{-intercept})}{\text{slope}} \right] \left[\frac{200\mu\text{L}}{V_{\text{sample}} (\mu\text{L})} \right] \times \text{dilution}$$

Raw data & Plate set up

	1	2	3	4	5	6	7	8	9	10	11	12
A	Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank
B	364	364	364	364	364	364	364	364	364	364	364	364
C	365	365	365	365	365	365	365	365	365	365	365	365
D	366	366	366	366	366	366	366	366	366	366	366	366
E	367	367	367	367	367	367	367	367	367	367	367	367
F	360	360	360	360	360	360	360	360	360	360	360	360
G	361	361	361	361	361	361	361	361	361	361	361	361
H	362	362	362	362	362	362	362	362	362	362	362	362

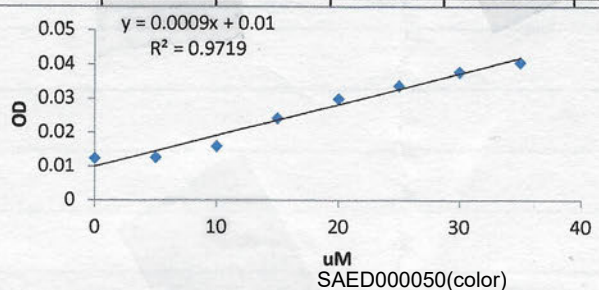
plate

A - G : standards

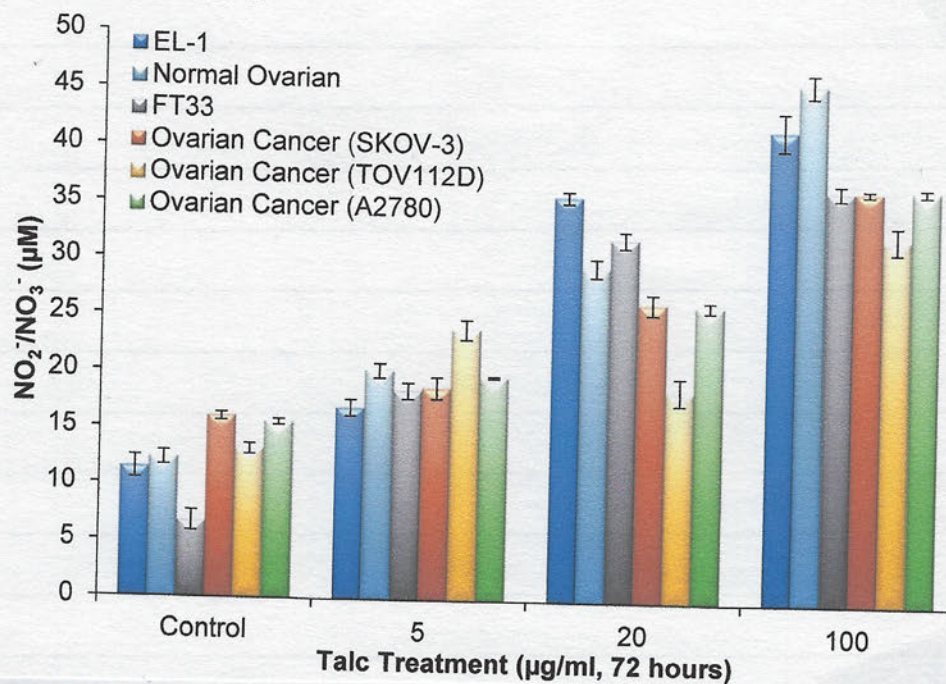
2/4	STD	STD										
	1	2	3	4	5	6	7	8	9	10	11	12
	0.048	0.0481	0.0468	0.049	0.0493	0.0778	0.07812	0.07922	0.08625	0.08553	0.08752	0.08112
	0.0484	0.0482	0.0578	0.0572	0.0592	0.05983	0.0589	0.0555	0.05113	0.05215	0.05228	0.08321
	0.0491	0.0541	0.0662	0.0651	0.0681	0.06345	0.06427	0.06333	0.06141	0.06051	0.0631	0.08541
	0.0614	0.0582	0.06321	0.0617	0.0626	0.06945	0.06881	0.06888	0.07342	0.07435	0.0755	
	0.0657	0.0652	0.0776	0.0734	0.0761	0.07883	0.0977	0.07843	0.07891	0.07833	0.0811	
	0.071	0.0677	0.0597	0.0602	0.0603	0.0571	0.0565	0.0563	0.05531	0.05732	0.0566	
	0.0746	0.0722	0.0619	0.0657	0.06311	0.06422	0.06334	0.06342	0.06132	0.06312	0.0604	
	0.0773	0.075	0.0699	0.06912	0.068777	0.07112	0.07213	0.07321	0.07745	0.07569	0.07811	

Standard curve

CONC	STANDER W/O MEDIA	avg	correct
0	0.048 0.0481	0.04805	0.012417
5	0.0484 0.0482	0.0483	0.012667
10	0.0491 0.0541	0.0516	0.015967
15	0.0614 0.0582	0.0598	0.024167
20	0.0657 0.0652	0.06545	0.029817
25	0.071 0.0677	0.06935	0.033717
30	0.0746 0.0722	0.0734	0.037767
35	0.0773 0.075	0.07615	0.040517
blank	0.0346 0.0363	0.036	0.035633



samp	1	2	3	- blank	- blank	- blank	uM	uM	uM	avg	Sd
HOSEPIC	0.0468	0.049	0.0493	0.011167	0.013367	0.013667	1.296296	3.740741	4.074074	3.907407	0.23570226
TOV-112-C	0.0578	0.0572	0.0592	0.022167	0.021567	0.023567	13.51852	12.85185	15.07407	13.18519	0.47140452
TOV112-5 ug	0.0662	0.0651	0.0681	0.030567	0.029467	0.032467	22.85185	21.62963	24.96296	23.90741	1.49278098
TOV112-20ug	0.06321	0.0647	0.0626	0.027577	0.026067	0.026967	19.52963	17.85185	18.85185	18.69074	1.18636804
TOV112-100 ug	0.0776	0.0734	0.0761	0.041967	0.037767	0.040467	35.51852	30.85185	33.85185	32.35185	2.1213
SKOV-3-C	0.0597	0.0602	0.0603	0.024067	0.024567	0.024667	15.62963	16.18519	16.2963	16.03704	0.35717225
SKOV-3-5 ug	0.0619	0.0657	0.06311	0.026267	0.030067	0.027477	18.07407	22.2963	19.41852	18.7463	0.95066578
SKOV-3-20 ug	0.0699	0.06912	0.068777	0.034267	0.033487	0.033144	26.96296	26.0963	25.71519	26.33907	0.88231213
SKOV-3-100 ug	0.0778	0.07812	0.07922	0.042167	0.042487	0.043587	35.74074	36.0963	37.31852	36.52963	1.11565737
A2780-C	0.05983	0.0589	0.0555	0.024197	0.023267	0.019867	15.77407	14.74074	10.96296	13.36852	3.40196929
A2780-5 ug	0.06345	0.06427	0.06333	0.027817	0.028637	0.027697	19.7963	20.70741	19.66296	19.72963	0.0942809
A2780-20 ug	0.06945	0.06881	0.06888	0.033817	0.033177	0.033247	26.46296	25.75185	25.82963	26.1463	0.44783429
A2780-100 ug	0.07883	0.0977	0.07843	0.043197	0.062067	0.042797	36.88519	57.85185	36.44074	36.66296	0.31426968
Normal ovarian-C	0.0571	0.0565	0.0563	0.021467	0.020867	0.020667	12.74074	12.07407	11.85185	12.2963	0.62853936
Normal Ovarian-Talc	0.06422	0.06334	0.06342	0.028587	0.027707	0.027787	20.65185	19.67407	19.76296	20.20741	0.62853936
Normal ovarian-Talc 20 ug	0.07112	0.07213	0.07321	0.035487	0.036497	0.037577	28.31852	29.44074	30.64074	29.47963	1.64205908
Normal Ovarian-100 ug	0.08625	0.08553	0.08752	0.050617	0.049897	0.051887	45.12963	44.32963	46.54074	45.83519	0.99780624
Fallopian-C	0.05113	0.05215	0.05228	0.015497	0.016517	0.016647	6.107407	7.240741	7.385185	6.746296	0.90352533
Fallopian-5 ug	0.06141	0.06051	0.0661	0.025777	0.024877	0.021467	17.52963	16.52963	19.40741	18.46852	1.3277894
Fallopian-20ug	0.07342	0.07435	0.0755	0.037787	0.038717	0.039867	30.87407	31.90741	33.18519	32.02963	1.63420234
Fallopian-100 ug	0.07891	0.07833	0.0811	0.043277	0.042697	0.045467	36.97407	36.32963	39.40741	38.19074	1.7206265
EL-1-C	0.05531	0.05732	0.0566	0.019677	0.021687	0.020967	10.75185	12.98519	12.18519	11.46852	1.01351972
EL-1-5 ug	0.06132	0.06312	0.0604	0.025687	0.027487	0.024767	17.42963	19.42963	16.40741	16.91852	0.72282027
EL-1-20 ug	0.07745	0.07569	0.07811	0.041817	0.040057	0.042477	35.35185	33.3963	36.08519	35.71852	0.51854497
EL-1-100 ug	0.08112	0.08321	0.08541	0.045487	0.047577	0.049777	39.42963	41.75185	44.1963	41.81296	3.37054232

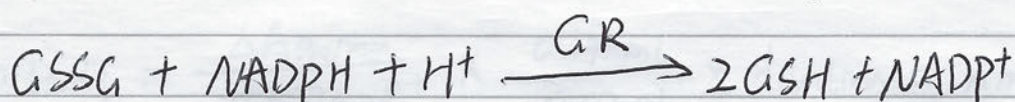
A ELISA

4/8/2018

GSR Assay

Cayman Chem. Cat # 203202

- Glutathione reductase catalyzes NADPH dependent reaction of oxidized GSH (GSSG) to GSH.
- A high GSH/GSSG ratio crucial for protein against ox. stress



- Oxidation of NADPH to NADP⁺ accompanied by a decrease in absorbance at 340 nm.

- Preparation

- GR Assay Buffer (10x)

- dilute 2ml assay buffer with 18ml HPLC-grade water
- store 2 months, at 4°C
- must be 25°C to be use in assay

- GR Sample Buffer (10x)

- dilute 2ml sample buffer with 18ml HPLC-grade water
- use to dilute GR control + GR samples
- store 1 month, at 4°C

- GR Control

- Aliquot and store at -20°C
- transfer 10µl to tube plus 990µl sample Buffer
- keep on ice, stable for 2 hours
- Will cause ~ 0.04 absorbance (U/min)

- GSSG

- Ready to use

— GR - NADPH

- Each vial enough for 40 vxn's/wells
- Add 2ml HPLC-grade water + Vortex
- keep at Room Temp. store at 4°C, stable for 2 days
- No refreezing

— Assay Procedure

* Final Volume of assay is 190 μ l/well, detect at 340nm

1. Add 120 μ l Assay Buffer and 20 μ l GSSG to 3 wells \rightarrow Blank
2. Add 100 μ l Assay Buffer and 20 μ l GSSG and 20 μ l dilute Control to 3 wells. \rightarrow Control
3. For samples, add : 100 μ l Assay buffer
20 μ l GSSG
20 μ l samples

* Amt GR added should cause absorbance \downarrow between 0.08 ~ 0.1 /min

4. Initiate vxn: add 50 μ l NADPH to All wells

* as fast as possible

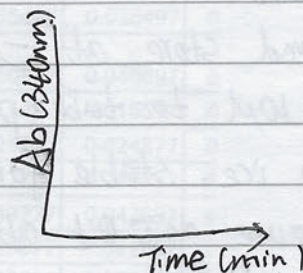
5. Shake plate for few seconds to mix.

6. Read absorbance at 340nm once every minute.

- Get 5 time points
- Initial Reading should be not above 1.2 or below 0.5

— Calculation

1. Δ absorbance per minute
 - Plot absorbance values vs time
 - get slope



2. Determine rate of $\Delta A_{340}/\text{min}$ for background/blank and subtract from rate of sample wells

3. NADPH extinction coefficient = $0.00373 \mu\text{M}^{-1}$

- 1 unit = amt. enzyme that will cause oxidation at 1.0 nmol
- actual extinction is $0.00622 \mu\text{M}^{-1} \text{cm}^{-1}$ - adjust from path of well.
- NADPH to NADP^+ per min at 25°C

$$\text{GR activity} = \frac{\Delta A_{340}/\text{min}}{0.00373 \mu\text{M}^{-1}} \times \frac{0.19 \text{ mL}}{0.02 \text{ mL}} \times \text{dilution} = \text{nmol/min/mL}$$

- Activity of $20 \sim 255 \text{ nmol/min/mL}$ are in reproducibility
- this is equal to absorbance decrease of $0.008 \sim 0.1/\text{min}$

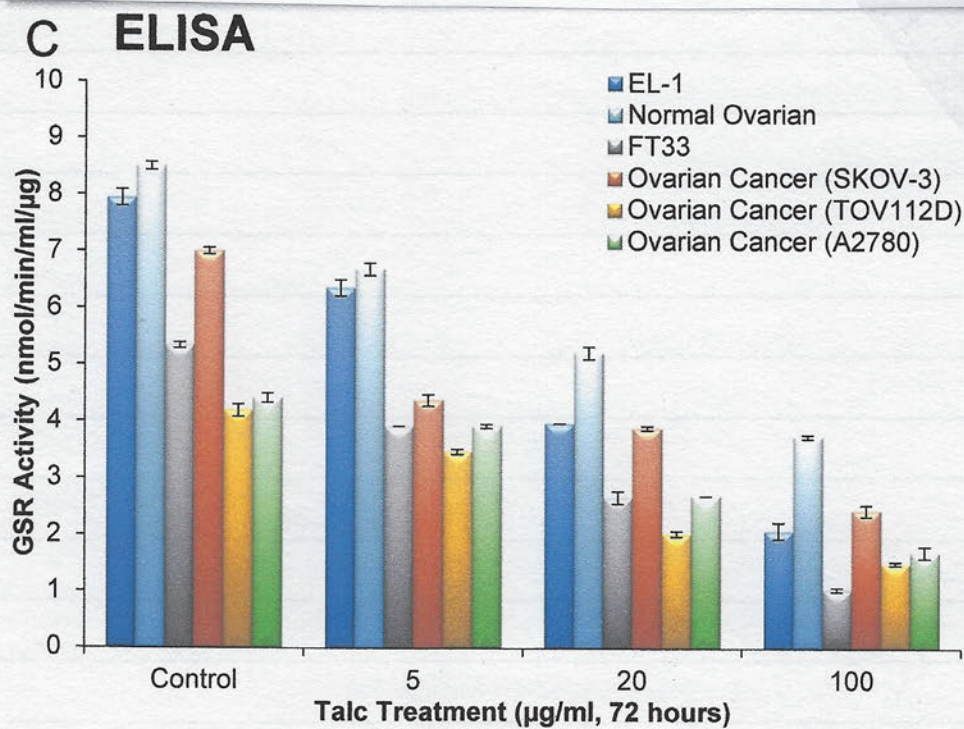
	1	2	3	4	5	6	7	8	9	10	11	12
A	Blank	382	366	370								
B	383	356	367	371								
C	384	359	360									
D	385	358	361									
E	386	359	362									
F	379	+	+	363								
G	380	+	364	368								
H	381	365	369									

Plate:

+ = positive control

4/8/2018							Average nmol/min /ml	SD
sample diluted with buffer to 5g proteins								
ID	Abs 1	Abs 2	Slope	0	Abs 1	Abs 2	Slope	0
Background	0.4857	0.3273	0.03168	0	0.4857	0.3257	0.032	0.03189
Positive Control	0.5185	0.5124	0.00122	3.107	0.5172	0.513	0.0009	2.292
HoeEJC Unit								
T0V-112-C	0.5122	0.5038	0.00168	4.279	0.505	0.4969	0.00162	4.126
T0V112-5 ug	0.4795	0.474	0.001375	3.502	0.4785	0.473	0.001375	3.502
T0V112-20ug	0.3936	0.3895	0.00082	2.088	0.3933	0.3893	0.0008	2.033
T0V112-100 ug	0.3419	0.3389	0.0006	1.528	0.342	0.339	0.0006	1.528
SKOV-3-C	0.5791	0.5654	0.00274	6.979	0.5793	0.5656	0.00274	6.979
SKOV-3-5 ug	0.5757	0.5673	0.00168	4.279	0.5758	0.567	0.00176	4.483
SKOV-3-20 ug	0.5716	0.564	0.00152	3.871	0.5713	0.5638	0.0015	3.820
SKOV-3-100 ug	0.5253	0.5203	0.001	2.547	0.5252	0.5204	0.00096	2.445
A2780-C	0.5555	0.552	0.00175	4.457	0.511	0.5025	0.0017	4.330
A2780-5 ug	0.4888	0.481	0.00156	3.973	0.4881	0.4804	0.00154	3.922
A2780-20 ug	0.4798	0.4745	0.00106	2.700	0.4768	0.4715	0.00106	2.6973
A2780-100 ug	0.4286	0.4254	0.00064	1.630	0.4287	0.4252	0.0007	1.783

[illegible]



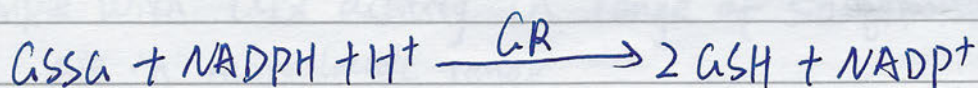
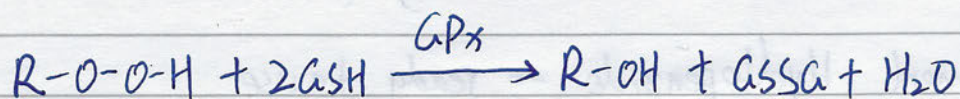
5/14/2018

Glutathione Peroxidase Assay Kit (Cayman chemical Cat # 703102)

— GPx Catalyzes the reduction of hydroperoxides, including H_2O_2 by reduced GSH, protecting cell from oxidative damage.

- All are tetramers of 4 identical subunits.
- Each subunit contains a selenocysteine in active site which participates directly in the $2e^-$ reduction of peroxide substrate

— GSH used as e^- donor to regenerate reduced form of selenocysteine



- Oxidation of NADPH to $NADP^+$ accompanied by a decrease in absorbance at 340nm

Reagent Preparation

1. GPx assay buffer (10x), 3ml/vial
 - Add 27ml HPLC- H_2O to contents of vial
 - Store $4^\circ C$, 6 months

2. GPx Sample Buffer (10x)
 - dilute 2ml concentrate ~ 18ml HPLC- H_2O
 - Use to dilute control and samples
 - Store $4^\circ C$, stable for 1 month

3. Glutathione Peroxidase (Control) — 50µl bovine erythrocyte GPx

- Aliquot and store at -20°C
- Transfer 10µl to tube plus 490µl sample buffer — on ice
- Stable 4 hours. No freezing.
- Absorbance by 0.051 µl/min

4. GPx Co-Substrate mixture — Vial good for 40 wells

- Vial has NADPH, GSH, GR
- Add 2ml 25°C while in use
- store 4°C, 2 days, No refreezing

5. GPx Control Hydroperoxide — ready to use

- -20°C storage

* Final Volume is 180µl/well

- Detect at 340nm

— Assay

1. add 120µl assay buffer, 50µl co-substrate mixture to 3 wells

- Blank / background

2. Positive Control

- 100µl assay buffer.
- 50µl co-substrate mix.
- 20µl diluted GPx Control to 3 wells

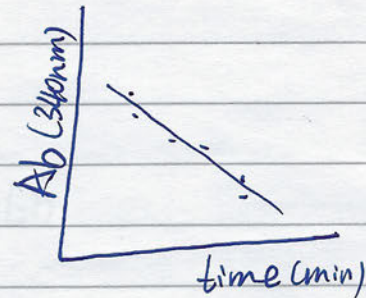
3. Samples.

- add 100µl assay buffer
- 50µl co-substrate mix
- 20µl Sample

4. Initiate rxn by adding 20µl Cumene hydroperoxide per well as fast as possible

- Shake to mix

5. Detect at 340nm Once every minute, at least 5 time point
 - Initial absorbance not above 1.2 or below 0.5



— Calculations

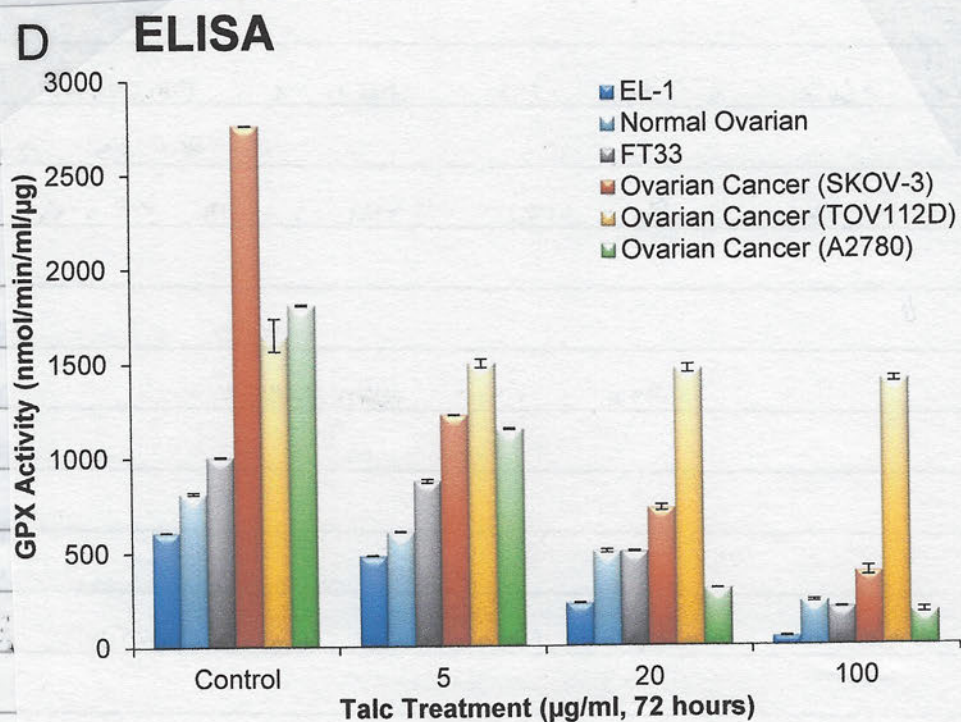
1. Determine ΔA_{340nm} per minutes
 - get slope
2. Determine rate of background, subtract from rate of samples.
3. Activity

$$\text{GPx activity (nmol/min/mL)} = \frac{\Delta A_{340}/\text{min}}{0.00373 \mu\text{M}^{-1}} \times \frac{0.19 \text{ mL}}{0.02 \text{ mL}}$$

↗ Final Volume
 ↖ Sample Volume

Sample with GPx activity in range of 50.344 ~~nmol/min/mL~~ are in reproducible range
 = to activity of 0.02 to 0.135/min ↓ in absorbance

5/14/2018 Titrate GPX									
	Slope	Slope	Abs Value	Abs Value	nmol/min/mL	nmol/min/mL	Average	Corrected	
Background	-6.665	-5.71	6.665	5.71	16975.2011	14542.8954	15759.0483		
Pos Control	-40.481667	-41.146667	40.481667	41.146667	103103.441	104797.141	103950.291	88191.243	
5ug - 394	-10.506667	-10.505	10.506667	10.505	26759.6076	26755.3619	26757.4848	10998.4365	
10ug - 394	-16.908333	-16.928333	16.908333	16.928333	43064.1189	43115.0572	43089.5881	27330.5398	



87

5/18/2018

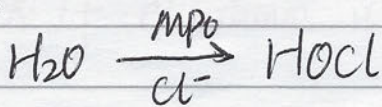
MPO ELISA

Northwest Life Science

Cat # NWK-MPO03

Myeloperoxidase - MPO

- Test principle



- Test principle:



(Baseline Abs₄₁₂ is Decreased)

- HOCl is rapidly trapped by β -amino acid taurine to form the stable oxidant taurine chloramine.
- Prevents accumulation of HOCl that can deactivate MPO
- After incubation for specific time, the MPO catalyzed reaction is stopped by add catalase to eliminate hydrogen peroxide.
- Taurine chloramine is then allowed to react with TNB, a yellow complex with maximal absorbance at 412 nm.
- 1 unit of MPO activity defined the amount of enzyme that ^{can} ~~can~~ catalyze sufficient HOCl production resulting in formation of 1 nmol TauNHCl at pH 6.5, 25°C over 30 minutes in presence 100 mM Chloride and 100 μM H₂O₂.

Reagents: Warm Kit ~ 2 hours, room temperature

- Assay Buffer: ready to use
- H₂O₂ reagent: Mix 12 μl of solution from the Hydrogen Peroxide Vial into 4988 μl Assay Buffer
 - mix + incubate 60 min at roomtemp. before use
 - must be used within 3 hours.
 - Label as working H₂O₂ solution

- Catalase reagent: Reconstitute the catalase Reagent with 20 ml of Assay Buffer

- Mix and labeled.

- TNB Reagent: Add 2.8ml Assay Buffer to the TNB vial.

- Mix and labeled
- Stand at room temp for at least 5 minutes before using

* Working H_2O_2 , Catalase and TNB Solution are stable for 3 hours after dilution and must be used ~~with~~ within that time

- Cells preparation:

- Cells from pg 33
- using medium.

- Assay Protocols:

- "Zero MPO Standard" is created by substituting Assay Buffer for sample. ~~ix~~

- the baseline for TNB absorbance Abs used later when analyzing data

1. Set temp of water bath or heating block to $25^{\circ}C$
2. Add 220 μ l assay buffer to all wells.
3. Add 20 μ l assay buffer to MPO zero standard, 20 μ l ddH₂O to Blank
4. Add 20 μ l Sample per well
5. Incubate 5 min
6. Add 10 μ l working H_2O_2 to each well.
7. Incubate 30 min
8. Add 10 μ l working Catalase to each well
9. Incubate 5 min
10. Add 25 μ l working TNB to each well and 25 μ l assay buffer to Blank and mix well

11. Incubate 20 min

12. Read at 412 nm

* If absorbance is lower than 0.06, dilute and repeat.

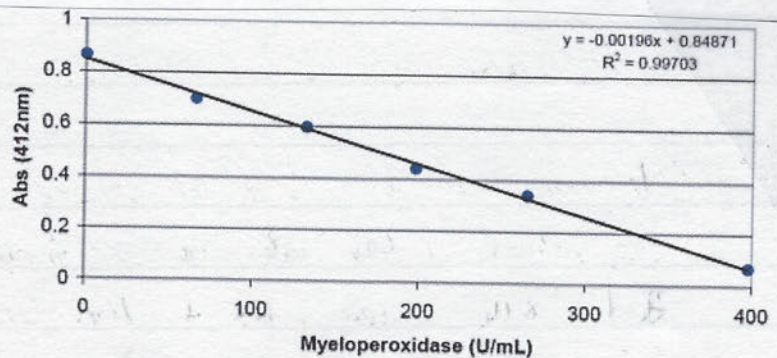
- Data Analysis

1. Calculate the average absorbance at 412 nm for zero MPO sample
2. Calculate the Average for Blank
3. Using the extinction coefficient for TNB of $14100 \text{ m}^2/\text{cm}^2$.
• using formula to calculate MPO activity

$$\text{Enzyme Protocol} = \frac{(A_{\text{base}} + A_{\text{blank}} - A_{\text{sample}})}{0.0141 \times 2} \times \frac{1140}{80}$$

units MPO/ml

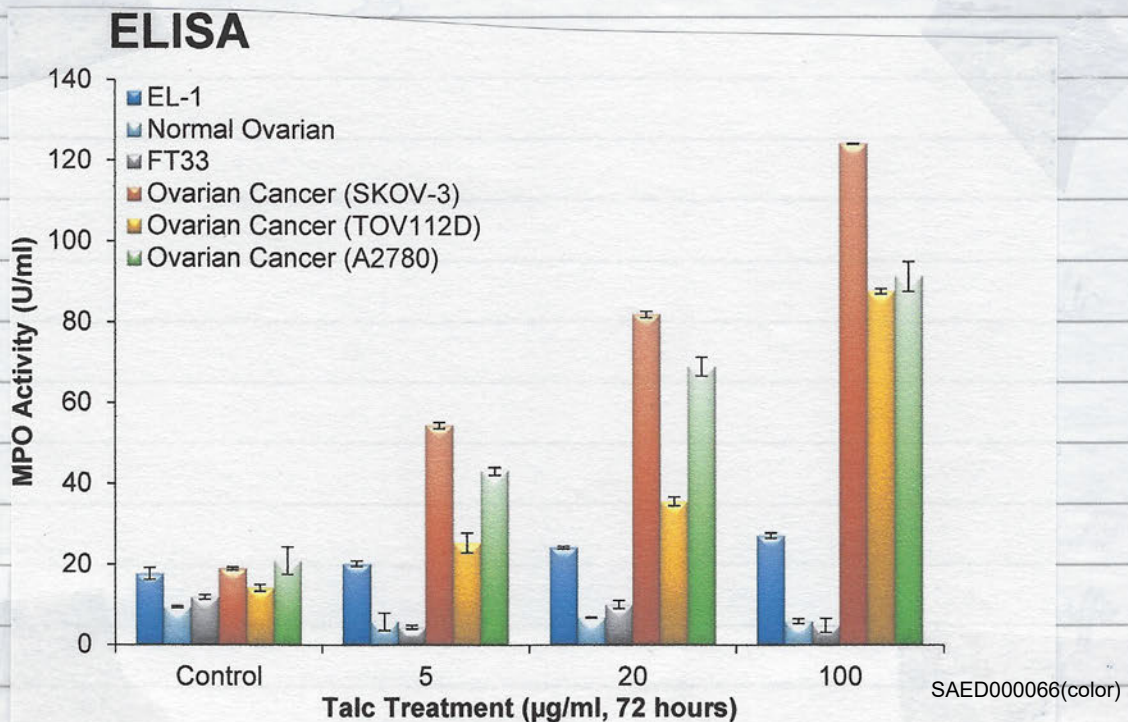
$$= 505.3 \times (A_{\text{base}} + A_{\text{blank}} - A_{\text{sample}})$$



1	2	3	4	5	6	7	8	9	10	11	12
0.0952	0.145	0.223	0.4322	0.4591	0.4369	0.1274	0.1303	0.1224	0.1313	0.1237	0.1207
0.3796	0.3741	0.3151	0.143	0.1267	0.1289	0.1351	0.1559	0.124	0.1253	0.1215	0.1382
0.3701	0.3678	0.4214	0.1254	0.127	0.1248	0.1347	0.1504	0.1304	0.121	0.1275	0.1269
0.4123	0.4128	0.415	0.1395	0.1218	0.1296	0.1243	0.1243	0.1302	0.1331	0.1288	0.1304
0.4279	0.4102	0.4248	0.136	0.1352	0.1449	0.1311	0.1346	0.132	0.1432	0.1483	0.1582
0.4207	0.4258	0.4376	0.137	0.1416	0.1292	0.1301	0.1268	0.134	0.1265	0.1307	0.1287
0.46	0.4589	0.5677	0.1232	0.1293	0.1363	0.134	0.1424	0.1287	0.1469	0.1403	0.1294
0.3904	0.3683	0.3882	0.123	0.1396	0.1211	0.1218	0.1273	0.1237	0.1617	0.1179	0.1176

5/18/2018									
used 5 ug protein									
	OD1	OD2	OD3	extinction coefficient = 14,100/m*cm					
MPO BLANK	0.0952	0.145	0.223	Avg Abs	Units MPO/ml	Units MPO/ml	Units MPO/ml	Average	St Dev
MPO zero standard	0.1796	0.1741	0.1151	0.1201					
TOV112-C	0.2701	0.2678	0.244	0.17685					
TOV112-5 ug	0.2523	0.2428	0.245		13.567305	14.729495	26.755635	14.1484	0.8217924
TOV112- 20ug	0.2279	0.2102	0.2248		22.561645	27.361995	26.250335	25.391325	2.5128199
TOV112-100 ug	0.1207	0.1258	0.1376		34.890965	43.834775	36.457395	35.67418	1.1076333
SKOV-3-C	0.26	0.2589	0.2677		89.059125	86.482095	80.519555	87.77061	1.8222354
SKOV-3-5 ug	0.1904	0.2083	0.1882		18.670835	19.226665	14.780025	18.94875	0.3930312
SKOV-3-20 ug	0.1322	0.1591	0.1369		53.839715	44.794845	54.951375	54.395545	0.7860623
SKOV-3-100 ug	0.0512	0.0512	0.061		83.248175	69.655605	80.873265	82.06072	1.679315
A2780-C	0.2449	0.2673	0.2544		124.177475	124.177475	119.225535	121.70151	3.5015504
A2780-5 ug	0.2007	0.21	0.2133		26.300865	14.982145	21.500515	20.927842	3.39436
A2780-20 ug	0.157	0.1567	0.1633		48.635125	43.935835	42.268345	45.451735	4.5019933
A2780-100 ug	0.1087	0.1167	0.1233		70.716735	70.868325	67.533345	69.12504	1.8832172
					95.122725	91.080325	87.745345	91.434035	3.6943386
EL-1-C	0.1105	0.1542	0.1334						
EL-1-5 ug	0.0972	0.0872	0.0968		94.213185	72.131575	82.641815	88.4275	11.045054
EL-1-20 ug	0.0532	0.0566	0.0611		100.933675	105.986675	101.135795	101.03474	2.8607895
EL-1-100 ug	0.0234	0.0219	0.0311		123.166875	121.448855	119.175005	121.17094	2.0023741
					138.224815	138.982765	134.334005	136.27941	2.4941218

5/19/2018									
used 5 ug protein									
	OD1	OD2	OD3	extinction coefficient = 14,100/m*cm					
MPO BLANK	0.0495	0.0528	0.0628	Avg Abs	Units MPO/ml	Units MPO/ml	Units MPO/ml	Average	St Dev
MPO zero standard	0.027	0.0289	0.02059	0.0550333					
Normal ovarian-C	0.0624	0.0614	0.0619	0.0254967					
Normal Ovarian-Talc 5 ug	0.0734	0.0649	0.069		9.161089	9.666389	9.413739	9.413739	0.25265
Normal ovarian-Talc 20 ug	0.067	0.0668	0.0675		3.602789	7.897839	5.826109	5.775579	2.1479708
Normal Ovarian-100 ug	0.075	0.0698	0.0681		6.836709	6.937769	6.584059	6.786179	0.1821885
Fallopian-C	0.056	0.0577	0.0575		2.794309	5.421869	6.280879	5.851374	0.6074118
Fallopian-5 ug	0.0696	0.0734	0.0724		12.395009	11.535999	11.637059	11.856022	0.4695032
Fallopian-20ug	0.0546	0.06127	0.0661		5.522929	3.602789	4.108089	4.411269	0.9953256
Fallopian-100 ug	0.0661	0.07128	0.0751		13.102429	9.732078	7.291479	10.041995	2.9178454
					7.291479	4.674025	2.743779	4.9030943	2.2824873



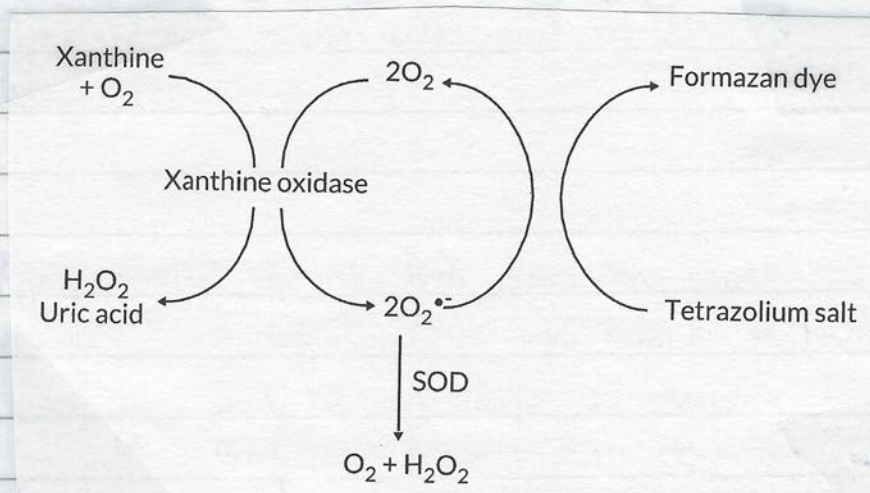
6/19/2018 Superoxide Dismutase Assay Kit

Caymanchem. Cat #706002

Superoxide dismutases (SODs)



— This kit utilizes a tetrazolium salt for detection of superoxide radicals generated by xanthine oxidase and hypoxanthine



Scheme of Superoxide Dismutase Assay

- The SOD assay measures all three types of SOD (Cu/Zn, Mn, and FeSOD)
- One unit of SOD is defined as amount of enzyme needed to exhibit 50% dismutation of the superoxide radical.

Reagent Preparation

— Assay Buffer (10X)

- Dilute 3 ml of Assay Buffer with 27 ml of HPLC-grade water. (1X)
- Store at 4°C. stable for 2 months.

— Sample Buffer (10X)

- Dilute 2 ml of Sample Buffer with 18 ml of HPLC-water (1X, 50mM Tris-HCl)
- Store at 4°C stable for 6 months

- Radical Detector

- 250 μ l of tetrazolium salt solution
- Prior to use, 50 μ l of solution + 19.95ml diluted Assay Buffer.
- * Cover with tin foil
- Stable for 2 months. enough for 96 well
- Store unused at -20°C

- SOD Standard

- Contain 100 μ l of bovine erythrocyte SOD (Cu/Zn)
- Store the thawed enzyme on ice
- Store at -20°C, stable two freeze/thaw cycles.

- Xanthine Oxidase

- Contain 150 μ l of Xanthine Oxidase.
- Prior to use, thaw one vial and transfer 50 μ l of supplied enzyme with 1.95ml of diluted ~~of~~ sample Buffer
- This diluted enzyme is stable for one hour
- * Do not refreeze the thawed enzyme

Sample preparation

- Cell lysate see pg 53
- Collect cells by centrifugation at 1000-2000g, 10 min. 4°C
- * For adherent cells, use a rubber policeman,
- Homogenize or sonicate the cell pellet in cold 20mM Hepes.
- Centrifuge at 1500xg, 5 min. 4°C
- Remove the supernatant for assay and store on ice
- freeze sample at -80°C
- Stable for two months.

Assay protocol

- Plate Set up (as following sheet)

	1	2	3	4	5	6	7	8	9	10	11	12
A	Standard	368	369	370	371	372	373	374	375	376	377	378
B	Standard	369	370	371	372	373	374	375	376	377	378	379
C	Standard	370	371	372	373	374	375	376	377	378	379	380
D	Standard	371	372	373	374	375	376	377	378	379	380	381
E	Standard	372	373	374	375	376	377	378	379	380	381	382
F	Standard	373	374	375	376	377	378	379	380	381	382	383
G	Standard	374	375	376	377	378	379	380	381	382	383	384
H	Standard	375	376	377	378	379	380	381	382	383	384	385

Sample plate format

A-G : Standards

- * Final volume is 230μl / well
- * Assay temperature is 25°C
- * Read at 440 ~ 460 nm.

- Standard Preparation

- Dilute 20μl of SOD standard with 1.98 ml Sample buffer (dilute)
- Take 7 clean glass test tubes and mark A-G
- Add amount of SOD stock and Sample Buffer to each tubes, as below

Tube	SOD Stock (μl)	Sample Buffer (μl)	Final SOD Activity (U/ml) in Well
A	0	1,000	0
B	20	980	0.005
C	40	960	0.010
D	80	920	0.020
E	120	880	0.030
F	160	840	0.040
G	200	800	0.050

Table 1. Superoxide Dismutase standards

Performing the Assay

1. SOD Standard Wells

- add 200 μ l of diluted Radical Detector and 10 μ l of standard

2. Sample wells

- add 200 μ l of the diluted Radical Detector and 10 μ l of samples

3. Initiate the reactions by adding 20 μ l of diluted Xanthine Oxidase to all the wells.

* Make sure to note the precise time you started

* Add Xanthine Oxidase as quickly as possible

4. Carefully shaker for 30 minutes at room temp

5. Read at 440 ~ 460 nm

Calculation

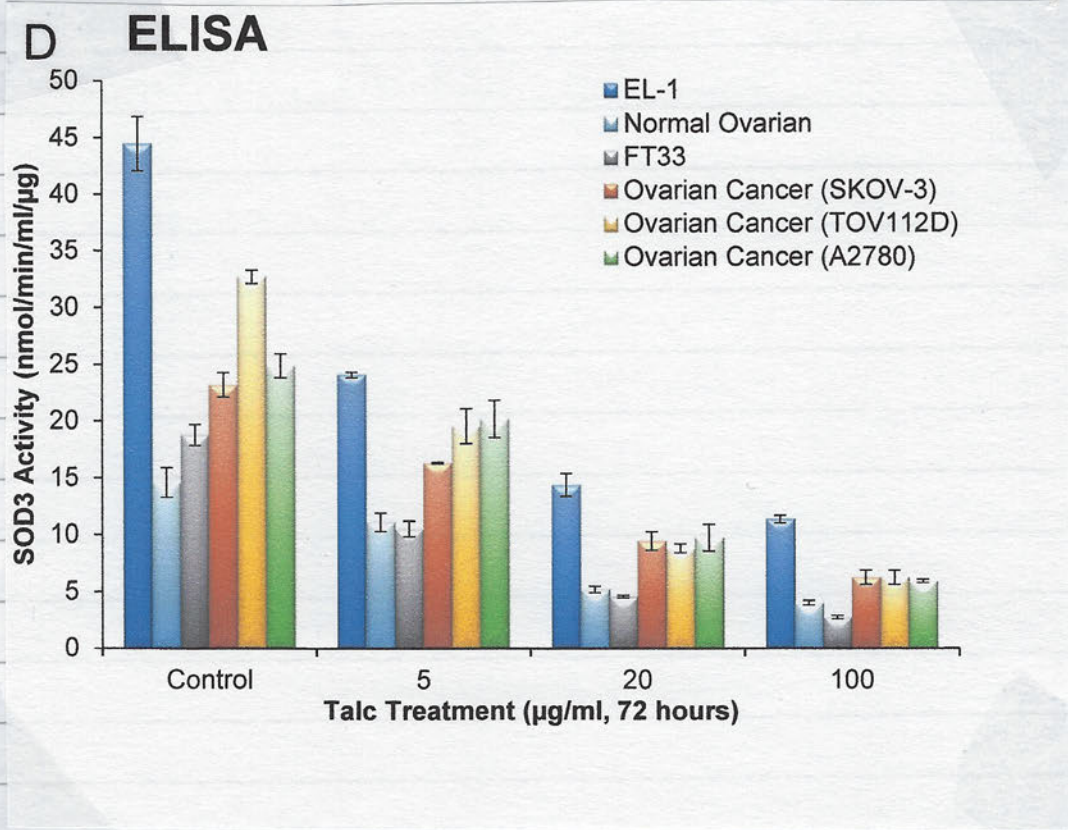
- Calculate the average absorbance of each standard and sample

- Divide standard A's absorbance by itself and divide standard A's absorbance by all the other standards and samples absorbances to yield the Linearized Rate

- Plot the Linearized SOD ~~acti~~ standard rate as function of final SOD Activity (U/ml)

- Calculate the SOD activity of the samples using the equation obtained from the linear regression of standard curve substituting the Linearized rate for each sample

0.7 ug Protein												
6/19/2013	OD 1	OD 2	OD 3	LR 1	LR 2	LR 3	U/ml	U/ml	U/ml	U/ml	Average	SD
BLANK	0.3138	0.3167	0.3187	11.576543	8.796435	8.342527	34.709321	25.615603	24.13087	24.87	1.05	
A2780-C	0.0405	0.0533	0.0562	6.301747	7.008221	8.055842	17.455491	19.766364	23.193126	20.14	2.89	
A2780-5 ug	0.0744	0.0669	0.0582	4.587573	3.287868	11.848437	9.2603704	7.5971084	7.5971084	9.72	1.83	
A2780-20 ug	0.1022	0.1235	0.1426	2.722706	2.777547	2.782493	5.7484664	5.9278518	5.9440275	5.94	0.14	
A2780-100 ug	0.1722	0.1688	0.1685	2.722706	2.777547	2.782493	5.7484664	5.9278518	5.9440275	5.94	0.14	
SKOV-3-C	0.0498	0.0600	0.0566	9.414659	7.814167	8.283569	27.637808	22.402607	23.93802	23.17	1.09	
SKOV-3-5 ug	0.0786	0.0678	0.0790	5.965013	6.915192	5.934810	16.354034	19.462065	16.255242	16.30	0.07	
SKOV-3-20 ug	0.1036	0.1165	0.1276	4.525579	4.024464	3.674373	11.645655	10.006508	8.8613639	9.43	0.81	
SKOV-3-100 ug	0.1651	0.1556	0.1711	2.8397941	3.0131748	2.7402104	6.1314604	6.6985879	5.8057227	6.25	0.63	
TOV-112-C	0.0433	0.0359	0.0433	10.827945	13.059889	10.827945	32.260659	39.561336	32.260659	36.91	5.16	
TOV112-5 ug	0.0683	0.0611	0.0757	6.8645681	7.6734861	6.1935271	19.296475	21.942442	17.101504	19.52	3.42	
TOV112-20ug	0.1143	0.1253	0.1311	4.1019248	3.7418196	3.5762777	10.259883	9.0819813	8.5404943	8.81	0.38	
TOV112-100 ug	0.1654	0.1559	0.1711	2.8346433	3.0073765	2.7402104	6.1146122	6.6796217	5.8057227	6.24	0.62	
Normal ovarian-C	0.0855	0.0954	0.0789	5.4836257	4.9145702	5.9423321	14.77942	12.918042	16.279846	14.60	2.38	
Normal Ovarian-Talc 5 ug	0.1130	0.1035	0.1120	4.149115	4.5299517	4.1861607	10.414242	11.659957	10.535419	11.10	0.80	
Normal ovarian- Talc 20 ug	0.1774	0.1792	0.1883	2.6428974	2.6163504	2.4899097	5.4874124	5.4005774	4.9869905	5.19	0.29	
Normal Ovarian-100 ug	0.2003	0.2100	0.2187	2.3407389	2.232619	2.1438043	4.4990535	4.145394	3.8548814	4.00	0.21	
Fallopian-C	0.0773	0.0679	0.0722	6.0653299	6.9050074	6.492868	16.682171	19.428752	18.080646	18.75	0.95	
Fallopian-5 ug	0.1156	0.1162	0.1083	4.0557958	4.0348537	4.3291782	10.108996	10.040494	11.003228	10.52	0.68	
Fallopian-20ug	0.1896	0.1964	0.2005	2.4728376	2.38722	2.338404	4.9311475	4.6510928	4.491416	4.57	0.11	
Fallopian-100 ug	0.2451	0.2561	0.2650	1.9128927	1.8307302	1.7692453	3.0995708	2.8308176	2.6297008	2.73	0.14	
EL-1-C	0.0334	0.0411	0.0268	14.037425	11.407543	17.494403	42.758854	34.156521	54.06661	44.11	14.08	
EL-1-5 ug	0.0567	0.0765	0.0567	8.2689594	6.1287582	8.2689594	23.890232	16.889645	23.890232	20.39	4.95	
EL-1-20 ug	0.0886	0.0841	0.0912	5.2917607	5.5749108	5.1408991	14.151831	15.078013	13.658363	14.37	1.00	
EL-1-100 ug	0.1005	0.1042	0.1076	4.6651741	4.4995202	4.357342	12.102269	11.560416	11.095352	11.38	0.33	



6/21/2018

Caspase-3 Colorimetric Assay

R&D systems, Cat# BF3100

Reagents provided & storage conditions

REAGENT	DESCRIPTION	STORAGE OF OPENED MATERIAL
DEVD-pNA Substrate	500 μ L of 4 mM DEVD substrate peptide conjugated to p-nitroaniline (protect from light).	Store at $\leq -20^{\circ}\text{C}$ for up to 6 months after initial use. Avoid repeated freeze-thaw cycles.
DTT	400 μ L of a 1 M solution of dithiothreitol (DTT).	
Lysis Buffer	100 mL of Lysis Buffer.	May be stored for up to 6 months at $2-8^{\circ}\text{C}$.
Reaction Buffer 3	4 vials (2.0 mL/vial) of 2X Reaction Buffer 3.	
Dilution Buffer	100 mL of Dilution Buffer.	

* Store the unopened kit at -20°C in a manual defrost freezer

- This kit use to determine the increased enzymatic activity of Caspase-3 class of proteases in apoptotic cells by colorimetric reaction.
- Caspase-3 known as CPP-32, Yama or Apopain, is an intracellular cysteine protease that exists as a proenzyme, becoming activated during the cascade of events associated with apoptosis.
- The presence of caspase-3 in cells of different lineages suggests that caspase-3 is a key enzyme required for the execution of apoptosis.
- The cleavage of peptide by the caspase releases the chromophore pNA, which can be quantitated spectrophotometrically at wavelength of 405 nm.
- The level of caspase enzymatic activity in the cell lysate is directly proportional to the color reaction.

Sample preparation:

1. Collect cells, 250×9 , 10 minutes
- Add 25 mL of cold Lysis Buffer per 1×10^6 cells.
- Seed 10^6 cells per dish

2. The cell lysate is incubated on ice for 10 minutes
 - centrifuged at $10000 \times g$ for 1 minute.
 - Transfer the supernate to a new tube and on ice
3. The enzymatic reaction for caspase activity is best carried out in a 96 well flat bottom microplate
4. Each reaction requires 50 μ l of cell lysate,
5. Each reaction also requires 50 μ l of 2X Reaction Buffer 3,
 - Prior to using the 2X Reaction Buffer 3
 - Add 10 μ l of fresh DTI stock per 1ml of 2X Reaction 3
6. To each reaction well add 5 μ l of caspase-3 colorimetric substrate
7. ~~Incubate~~ Incubate the plate 37°C , 1~2 hours.
8. Read the plate on a microplate reader using a wavelength of 405nm
9. Additional control that should be included in this assay
 - no cell lysate and no substrate.
 - The total reaction volume must be kept constant and therefore distilled can be used to replace the volume by cell lysate.
10. For comparative analysis, the above assay should be repeated with non-induced cells.

Standard : Dilute in 1X Assay Buffer

- 1:2 dilution series 120 μ l of standard + 120 μ l buffer

S1 1mM

S5 62.5 μ M

S2 500 μ M

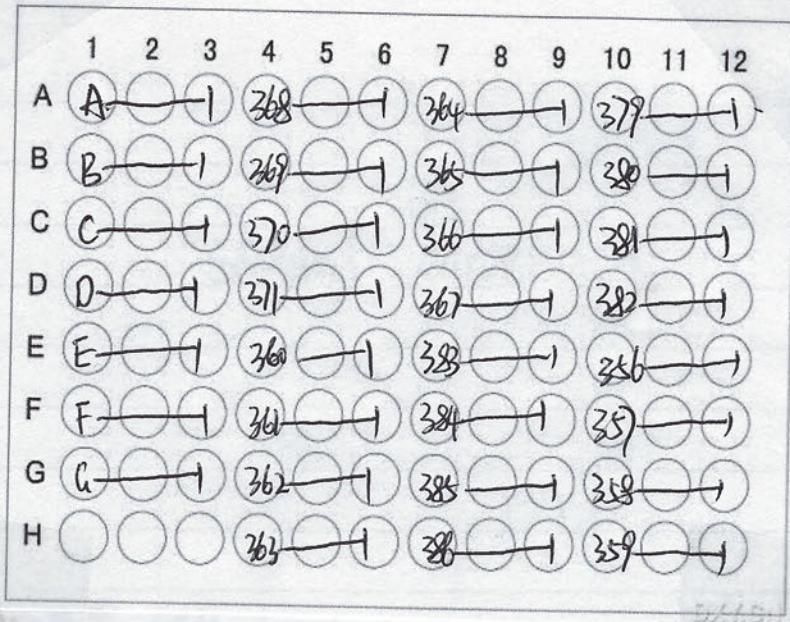
S6 31.3 μ M

S3 250 μ M

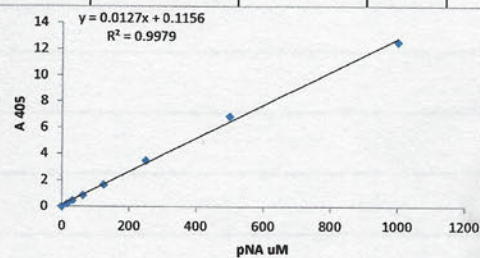
S7 15.6 μ M

S4 125 μ M

S8 1 μ M

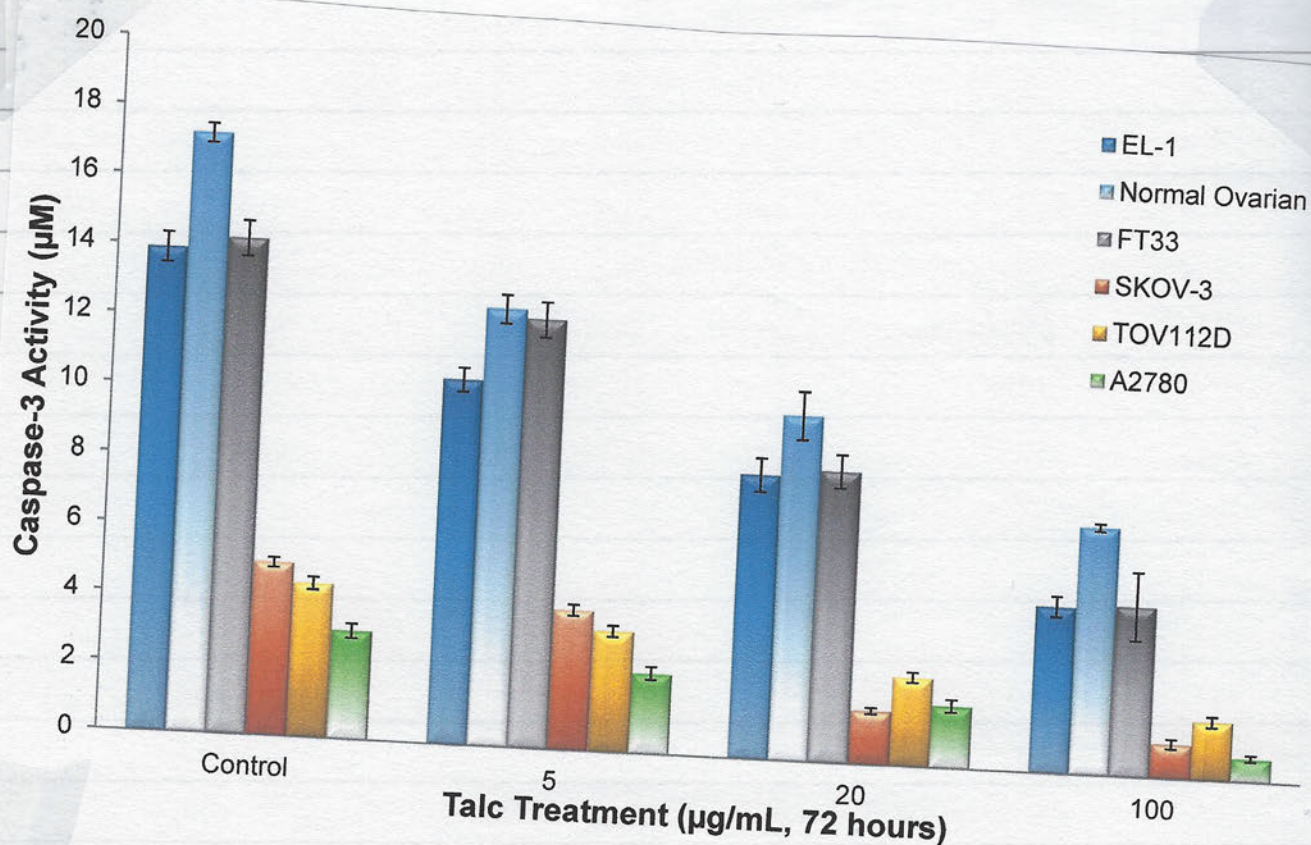


Standard	Raw1	Raw2	Raw3	Ave. Abs.	[Csps-3](uM)
1	0	0	0	0	0
2	0.203	0.137	0.208	0.206	15.625
3	0.419	0.433	0.487	0.446	31.25
4	0.844	0.848	0.891	0.861	62.5
5	1.642	1.671	1.714	1.676	125
6	3.455	3.512	3.497	3.488	250
7	6.716	6.778	7.063	6.852	500
8	12.503	12.604	18.265	12.554	1000
$y = 0.0127x + 0.1156$					



Protein

Caspase-3 assay									
100 ug protein									
Sample	Raw1	Raw2	Raw3	Average	[Csps-3]-1	[Csps-3]-2	[Csps-3]-3	[Csps-3] (uM)	SE
A2780-C	0.198	0.192	0.189	0.194	6.488	6.016	5.780	3.105	0.361
A2780-5 ug	0.177	0.172	0.169	0.173	4.835	4.441	4.205	2.307	0.318
A2780-20 ug	0.155	0.159	0.151	0.153	3.102	3.417	2.787	1.785	0.315
A2780-100 ug	0.132	0.131	0.135	0.134	1.291	1.213	1.528	0.673	0.164
SKOV-3-C	0.233	0.239	0.237	0.235	9.244	9.717	9.559	4.976	0.241
SKOV-3-5 ug	0.211	0.215	0.218	0.215	7.512	7.827	8.063	4.021	0.277
SKOV-3-20 ug	0.155	0.153	0.157	0.156	3.102	2.945	3.260	1.550	0.157
SKOV-3-100 ug	0.133	0.139	0.137	0.135	1.370	1.843	1.685	0.989	0.241
TOV-112-C	0.220	0.225	0.228	0.224	8.220	8.614	8.850	4.419	0.318
TOV112-5 ug	0.198	0.201	0.194	0.196	6.488	6.724	6.173	3.460	0.277
TOV112- 20ug	0.177	0.178	0.183	0.180	4.850	4.921	5.315	2.551	0.250
TOV112-100 ug	0.155	0.156	0.150	0.152	3.110	3.197	2.685	1.675	0.274
Normal ovarian-C	0.551	0.546	0.558	0.555	34.283	33.890	34.835	17.222	0.475
Normal Ovarian-Talc 5 ug	0.435	0.429	0.447	0.441	25.150	24.677	26.094	12.559	0.722
Normal ovarian- Talc 20 ug	0.333	0.363	0.344	0.339	17.118	19.480	17.984	9.909	1.195
Normal Ovarian-100 ug	0.288	0.292	0.288	0.288	13.583	13.913	13.567	7.101	0.196
Fallopian-C	0.488	0.471	0.492	0.490	29.323	27.984	29.638	14.237	0.878
Fallopian-5 ug	0.411	0.423	0.401	0.406	23.260	24.213	22.472	12.309	0.871
Fallopian-20ug	0.312	0.324	0.333	0.323	15.472	16.417	17.118	8.370	0.826
Fallopian-100 ug	0.254	0.237	0.211	0.219	10.898	9.535	7.512	4.877	1.704
EL-1-C	0.445	0.463	0.449	0.447	25.937	27.354	26.252	13.901	0.744
EL-1-5 ug	0.389	0.377	0.391	0.390	21.528	20.583	21.685	10.486	0.596
EL-1-20 ug	0.311	0.319	0.298	0.305	15.386	16.016	14.362	8.160	0.835
EL-1-100 ug	0.221	0.234	0.228	0.225	8.299	9.323	8.850	4.774	0.512



6/29/2018

SNP Genotyping Assay

(Applied Biosystems, Carlsbad, CA)

SNP

- SNP to be examined in cell pellets
- DNA was isolated utilizing the EZ1 DNA Tissue Kit (Qiagen) for EOC Cells according the manufacturer's protocols
- The TaqMan SNP Genotyping Assay set were used to genotype the SNP.

A	Gene (rs number)				
	CAT (rs769217)	NOS2 (rs2297518)	GSR (rs8190955)	GPX1 (rs3448)	SOD3 (rs2536512)
MAF	0.123	0.173	0.191	0.176	0.476
SNP	C-262T	C2087T	G201T	C-1040T	A377T
Chromosome Location	11p13	17q11.2	8p12	3q21.31	4p15.2
Amino Acid Switch	Isoleucine to Threonine	Serine to Leucine	Unknown	Unknown	Alanine to threonine
Effect on Activity	Decrease	Increase	Unknown	Unknown	Decrease

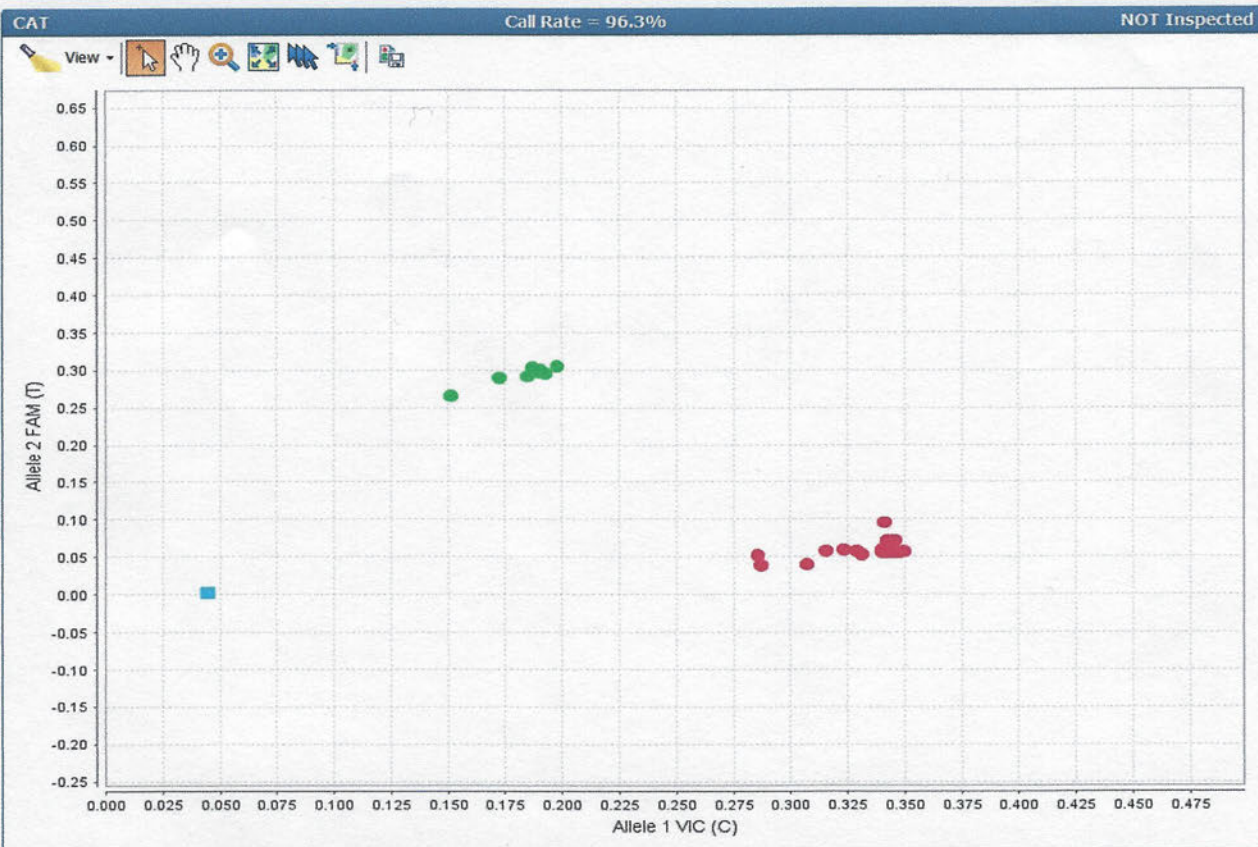
- The TaqMan SNP Genotyping Assay Set were used to genotype the SNPs
 • NCBI ds SNP genome Technology (Gen build 37), MAF source 1000 genomes
- The Applied Genomics Technology Center performed these assay
 • AGTC, Wayne State University, Detroit, MI
- Analysis was done utilizing the QuanStudio™ 12K Flex Real-time PCR System.

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 # Experiment Type : Endpoint
 # Instrument Type : QuantStudio™ 12K Flex Real-Time PCR System
 # Software Version Number : 1.4.0
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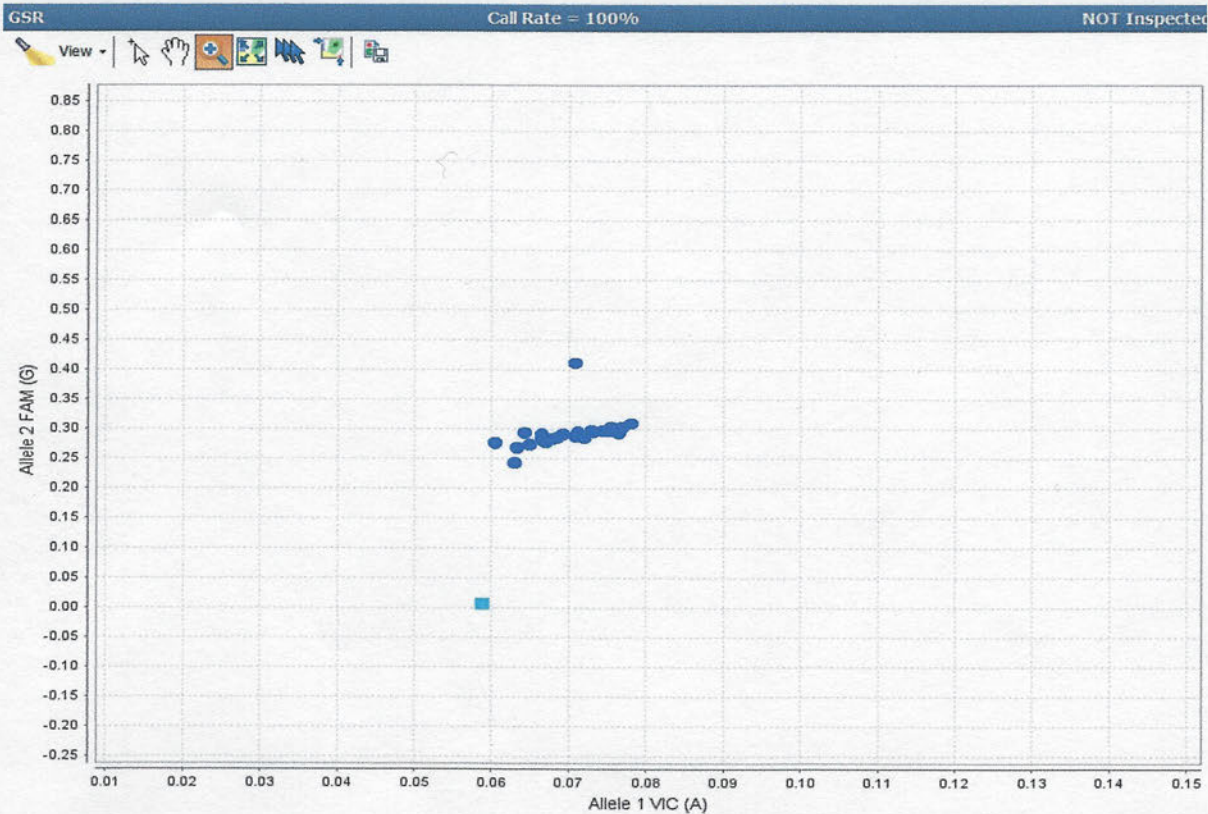
Assay ID	Assay Name	Population	Allele 1 Freq	Allele 2 Freq	1/1 Freq	1/2 Freq	2/2 Freq	Chi-Squared	P-Value	
5	SNP Assay	SOD3	All	0%	0%	0%	0%	0	1	
4	SNP Assay	NOS2	All	31.50%	68.50%	14.80%	33.30%	51.90%	1.396	0.237
3	SNP Assay	GPX1	All	100%	0%	100%	0%	0%	0	1
2	SNP Assay	GSR	All	0%	100%	0%	0%	100%	0	1
1	SNP Assay	CAT	All	84.60%	15.40%	69.20%	30.80%	0%	0.86	0.354
	SNP Assay	CYBA	All	41.70%	58.30%	12.50%	58.30%	29.20%	0.96	0.327

40954

Assay Name	Assay ID	NCBI SNP Ref.	Sample ID	Call	Allele1 (C) Amp Score	Allele2 (T) Amp Score	Well	Experiment Name
CAT	SNP Assay 5	rs769217	A2780-C	C/C	0.859261	0.000000	I01	2018-07-11_GS-997.eds
CAT	SNP Assay 5	rs769217	SKOV-C	C/C	0.868249	0.000000	I03	2018-07-11_GS-997.eds
CAT	SNP Assay 5	rs769217	TOV112-C	C/C	0.867341	0.000000	I05	2018-07-11_GS-997.eds
CAT	SNP Assay 5	rs769217	HOSPIC-C	C/C	0.875622	0.000000	I07	2018-07-11_GS-997.eds
CAT	SNP Assay 5	rs769217	FT33-C	C/C	0.871144	0.000000	I09	2018-07-11_GS-997.eds
CAT	SNP Assay 5	rs769217	NOC-C	C/C	0.876471	0.000000	I11	2018-07-11_GS-997.eds
CAT	SNP Assay 5	rs769217	A2780-T	C/C	0.877593	0.000000	I13	2018-07-11_GS-997.eds
CAT	SNP Assay 5	rs769217	SkOV-T	C/C	0.872718	0.000000	I15	2018-07-11_GS-997.eds
CAT	SNP Assay 5	rs769217	TOV112-T	C/T	0.658010	0.869565	I17	2018-07-11_GS-997.eds
CAT	SNP Assay 5	rs769217	HOSPIC-T	C/T	0.655459	0.868229	I19	2018-07-11_GS-997.eds
CAT	SNP Assay 5	rs769217	FT33-T	C/T	0.650990	0.864536	I21	2018-07-11_GS-997.eds
CAT	SNP Assay 5	rs769217	NOC-T	C/T	0.612055	0.850921	I23	2018-07-11_GS-997.eds
CAT	SNP Assay 5	rs769217	A2780-C	C/C	0.841331	0.000000	I02	2018-07-11_GS-997.eds
CAT	SNP Assay 5	rs769217	SKOV-C	C/C	0.860892	0.000000	I04	2018-07-11_GS-997.eds
CAT	SNP Assay 5	rs769217	TOV112-C	C/C	0.876584	0.000000	I06	2018-07-11_GS-997.eds
CAT	SNP Assay 5	rs769217	HOSPIC-C	C/C	0.874654	0.000000	I08	2018-07-11_GS-997.eds
CAT	SNP Assay 5	rs769217	FT33-C	C/C	0.877596	0.000000	I10	2018-07-11_GS-997.eds
CAT	SNP Assay 5	rs769217	NOC-C	C/C	0.874607	0.000000	I12	2018-07-11_GS-997.eds
CAT	SNP Assay 5	rs769217	A2780-T	C/C	0.867310	0.000000	I14	2018-07-11_GS-997.eds
CAT	SNP Assay 5	rs769217	SkOV-T	C/C	0.871008	0.000000	I16	2018-07-11_GS-997.eds
CAT	SNP Assay 5	rs769217	TOV112-T	C/T	0.656320	0.877184	I18	2018-07-11_GS-997.eds
CAT	SNP Assay 5	rs769217	HOSPIC-T	C/T	0.649022	0.863312	I20	2018-07-11_GS-997.eds
CAT	SNP Assay 5	rs769217	FT33-T	C/T	0.648668	0.867816	I22	2018-07-11_GS-997.eds
CAT	SNP Assay 5	rs769217	NOC-T	C/T	0.629139	0.864298	I24	2018-07-11_GS-997.eds
CAT	SNP Assay 5	rs769217	CEPH	C/C	0.838256	0.000000	N04	2018-07-11_GS-997.eds
CAT	SNP Assay 5	rs769217	NTC	N/A	0.000000	0.000000	N06	2018-07-11_GS-997.eds
CAT	SNP Assay 5	rs769217	SJL	C/C	0.835160	0.000000	N02	2018-07-11_GS-997.eds

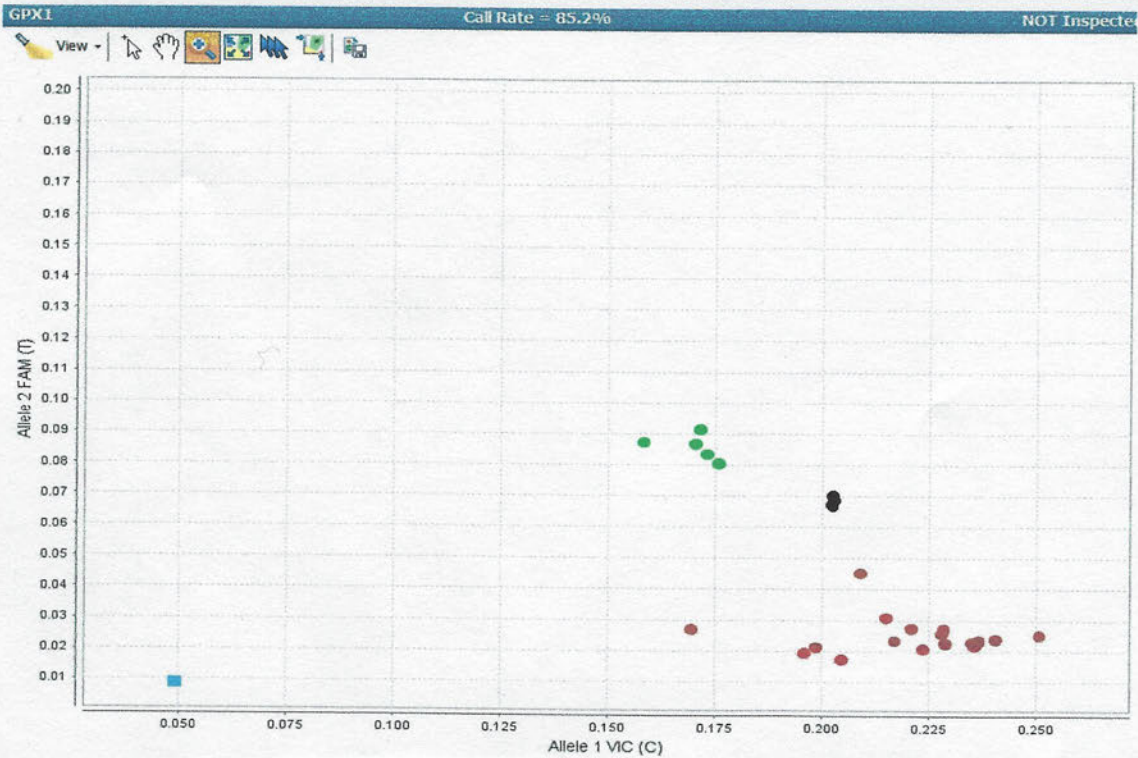


Assay Name	Assay ID	NCBI SNP Ref.	Sample ID	Call	Allele1 (A) Amp Score	Allele2 (G) Amp Score	Well	Experiment Name
GSR	C_25472285_20	rs8190955	A2780-C	G/G	0.000000	0.893638	G01	2018-07-11_GS-997.eds
GSR	C_25472285_20	rs8190955	SKOV-C	G/G	0.000000	0.897784	G03	2018-07-11_GS-997.eds
GSR	C_25472285_20	rs8190955	TOV112-C	G/G	0.000000	0.900424	G05	2018-07-11_GS-997.eds
GSR	C_25472285_20	rs8190955	HOSPIC-C	G/G	0.000000	0.903515	G07	2018-07-11_GS-997.eds
GSR	C_25472285_20	rs8190955	FT33-C	G/G	0.000000	0.899146	G09	2018-07-11_GS-997.eds
GSR	C_25472285_20	rs8190955	NOC-C	G/G	0.000000	0.903931	G11	2018-07-11_GS-997.eds
GSR	C_25472285_20	rs8190955	A2780-T	G/G	0.000000	0.907440	G13	2018-07-11_GS-997.eds
GSR	C_25472285_20	rs8190955	SKOV-T	G/G	0.000000	0.904642	G15	2018-07-11_GS-997.eds
GSR	C_25472285_20	rs8190955	TOV112-T	G/G	0.000000	0.903133	G17	2018-07-11_GS-997.eds
GSR	C_25472285_20	rs8190955	HOSPIC-T	G/G	0.000000	0.898479	G19	2018-07-11_GS-997.eds
GSR	C_25472285_20	rs8190955	FT33-T	G/G	0.000000	0.889356	G21	2018-07-11_GS-997.eds
GSR	C_25472285_20	rs8190955	NOC-T	G/G	0.000000	0.865288	G23	2018-07-11_GS-997.eds
GSR	C_25472285_20	rs8190955	A2780-C	G/G	0.000000	0.777331	H01	2018-07-11_GS-997.eds
GSR	C_25472285_20	rs8190955	SKOV-C	G/G	0.000000	0.890199	G02	2018-07-11_GS-997.eds
GSR	C_25472285_20	rs8190955	TOV112-C	G/G	0.000000	0.894693	G04	2018-07-11_GS-997.eds
GSR	C_25472285_20	rs8190955	HOSPIC-C	G/G	0.000000	0.907142	G06	2018-07-11_GS-997.eds
GSR	C_25472285_20	rs8190955	FT33-C	G/G	0.000000	0.910245	G08	2018-07-11_GS-997.eds
GSR	C_25472285_20	rs8190955	NOC-C	G/G	0.000000	0.906755	G10	2018-07-11_GS-997.eds
GSR	C_25472285_20	rs8190955	A2780-T	G/G	0.000000	0.905957	G12	2018-07-11_GS-997.eds
GSR	C_25472285_20	rs8190955	SKOV-T	G/G	0.000000	0.898448	G14	2018-07-11_GS-997.eds
GSR	C_25472285_20	rs8190955	TOV112-T	G/G	0.000000	0.900353	G16	2018-07-11_GS-997.eds
GSR	C_25472285_20	rs8190955	HOSPIC-T	G/G	0.000000	0.900184	G18	2018-07-11_GS-997.eds
GSR	C_25472285_20	rs8190955	FT33-T	G/G	0.000000	0.600299	G20	2018-07-11_GS-997.eds
GSR	C_25472285_20	rs8190955	NOC-T	G/G	0.000000	0.889474	G22	2018-07-11_GS-997.eds
GSR	C_25472285_20	rs8190955	NOC-T	G/G	0.000000	0.888737	G24	2018-07-11_GS-997.eds
GSR	C_25472285_20	rs8190955	CEPH	G/G	0.000000	0.891366	M04	2018-07-11_GS-997.eds
GSR	C_25472285_20	rs8190955	NTC	N/A	0.000000	0.000000	M06	2018-07-11_GS-997.eds
GSR	C_25472285_20	rs8190955	SJL	G/G	0.000000	0.894044	M02	2018-07-11_GS-997.eds

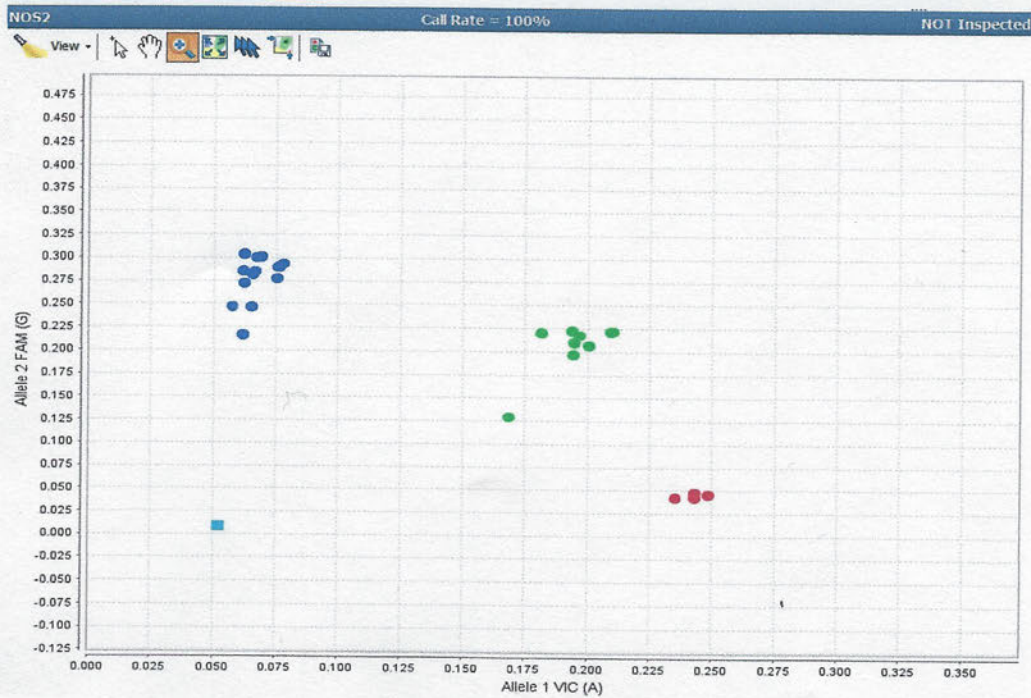


2

Assay Name	Assay ID	NCBI SNP Ref.	Sample ID	Call	Allele1 (C) Amp Score	Allele2 (T) Amp Score	Experiment Name
GPX1	C_8762057_10	rs3448	A2780-T	C/C	0.712653	0.000000	2018-07-11_GS-997.eds
GPX1	C_8762057_10	rs3448	SKOV-T	C/C	0.705939	0.000000	2018-07-11_GS-997.eds
GPX1	C_8762057_10	rs3448	FT33-T	C/C	0.732661	0.000000	2018-07-11_GS-997.eds
GPX1	C_8762057_10	rs3448	NOC-T	C/C	0.741459	0.000000	2018-07-11_GS-997.eds
GPX1	C_8762057_10	rs3448	A2780-C	UND	0.673660	0.000000	2018-07-11_GS-997.eds
GPX1	C_8762057_10	rs3448	SKOV-C	UND	0.671252	0.000000	2018-07-11_GS-997.eds
GPX1	C_8762057_10	rs3448	FT33-C	UND	0.659262	0.000000	2018-07-11_GS-997.eds
GPX1	C_8762057_10	rs3448	NOC-C	UND	0.672411	0.000000	2018-07-11_GS-997.eds
GPX1	C_8762057_10	rs3448	A2780-T	C/C	0.730852	0.000000	2018-07-11_GS-997.eds
GPX1	C_8762057_10	rs3448	SKOV-T	C/C	0.724943	0.000000	2018-07-11_GS-997.eds
GPX1	C_8762057_10	rs3448	FT33-T	C/C	0.717511	0.000000	2018-07-11_GS-997.eds
GPX1	C_8762057_10	rs3448	NOC-T	C/C	0.701899	0.000000	2018-07-11_GS-997.eds
GPX1	C_8762057_10	rs3448	EL-1	C/C	0.607089	0.000000	2018-07-11_GS-997.eds
GPX1	C_8762057_10	rs3448	A2780-C	C/T	0.626308	0.543334	2018-07-11_GS-997.eds
GPX1	C_8762057_10	rs3448	SKOV-C	C/T	0.621549	0.554203	2018-07-11_GS-997.eds
GPX1	C_8762057_10	rs3448	FT33-C	C/T	0.603927	0.530074	2018-07-11_GS-997.eds
GPX1	C_8762057_10	rs3448	NOC-C	C/T	0.608042	0.532584	2018-07-11_GS-997.eds
GPX1	C_8762057_10	rs3448	A2780-T	C/C	0.730550	0.000000	2018-07-11_GS-997.eds
GPX1	C_8762057_10	rs3448	SKOV-T	C/C	0.651890	0.000000	2018-07-11_GS-997.eds
GPX1	C_8762057_10	rs3448	FT33-T	C/C	0.744586	0.000000	2018-07-11_GS-997.eds
GPX1	C_8762057_10	rs3448	NOC-T	C/C	0.727160	0.000000	2018-07-11_GS-997.eds
GPX1	C_8762057_10	rs3448	A2780-T	C/C	0.731175	0.000000	2018-07-11_GS-997.eds
GPX1	C_8762057_10	rs3448	SKOV-T	C/C	0.714878	0.000000	2018-07-11_GS-997.eds
GPX1	C_8762057_10	rs3448	FT33-T	C/C	0.724256	0.000000	2018-07-11_GS-997.eds
GPX1	C_8762057_10	rs3448	NOC-T	C/C	0.685770	0.000000	2018-07-11_GS-997.eds
GPX1	C_8762057_10	rs3448	CEPH	C/T	0.592382	0.526196	2018-07-11_GS-997.eds
GPX1	C_8762057_10	rs3448	NTC	N/A	0.000000	0.000000	2018-07-11_GS-997.eds
GPX1	C_8762057_10	rs3448	SJL	C/C	0.701809	0.000000	2018-07-11_GS-997.eds

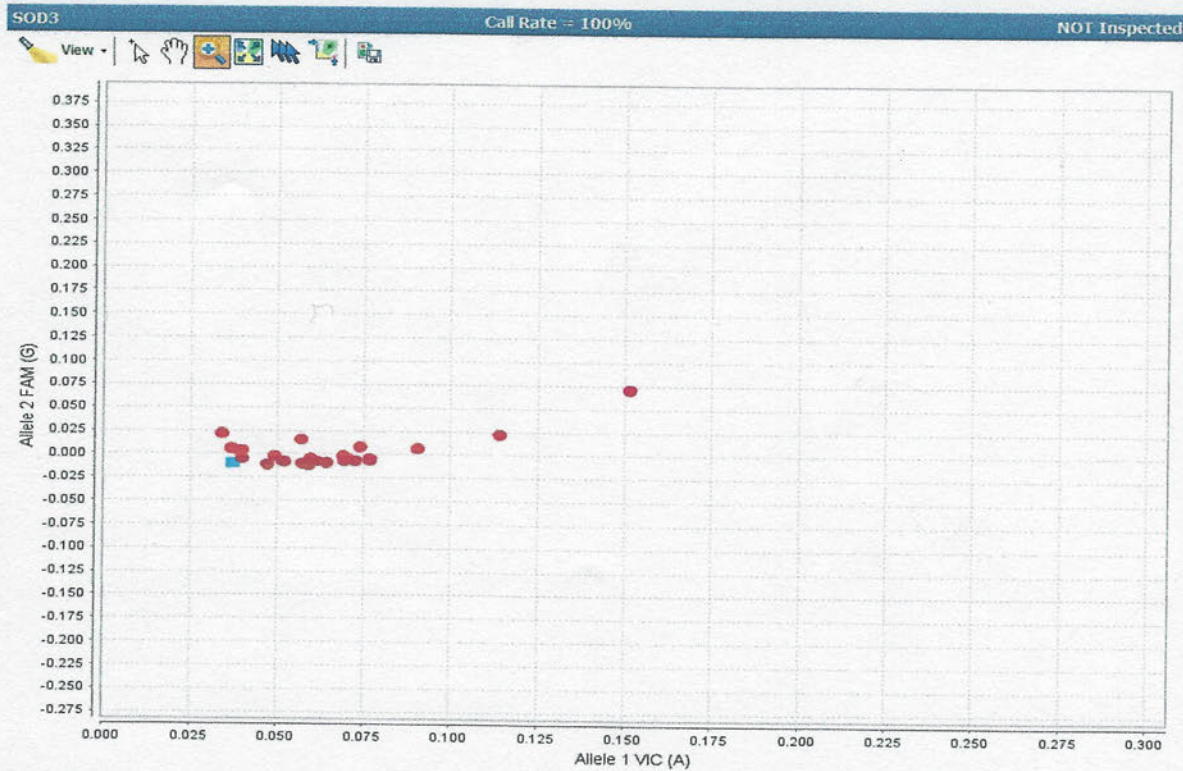


Assay Name	Assay ID	NCBI SNP Ref.	Sample ID	Call	Allele1 (A) Amp Score	Allele2 (G) Amp Score	Well	Experiment Name
NOS2	C_11889257_10	rs2297518	A2780-C	G/G	0	0.878929	C01	2018-07-11_GS-997.eds
NOS2	C_11889257_10	rs2297518	TOV112-C	G/G	0	0.873627	C03	2018-07-11_GS-997.eds
NOS2	C_11889257_10	rs2297518	SKOV-C	G/G	0	0.869711	C05	2018-07-11_GS-997.eds
NOS2	C_11889257_10	rs2297518	HOSPIC-C	G/G	0	0.794009	C07	2018-07-11_GS-997.eds
NOS2	C_11889257_10	rs2297518	FT33-C	G/G	0	0.88025	C09	2018-07-11_GS-997.eds
NOS2	C_11889257_10	rs2297518	NOC-C	G/G	0	0.881837	C11	2018-07-11_GS-997.eds
NOS2	C_11889257_10	rs2297518	A2780-C	G/G	0	0.877297	C13	2018-07-11_GS-997.eds
NOS2	C_11889257_10	rs2297518	TOV112-C	G/G	0	0.866705	C15	2018-07-11_GS-997.eds
NOS2	C_11889257_10	rs2297518	SKOV-C	G/G	0	0.879188	C17	2018-07-11_GS-997.eds
NOS2	C_11889257_10	rs2297518	HOSPIC-C	G/G	0	0.881639	C19	2018-07-11_GS-997.eds
NOS2	C_11889257_10	rs2297518	FT33-C	G/G	0	0.870062	C21	2018-07-11_GS-997.eds
NOS2	C_11889257_10	rs2297518	NOC-C	G/G	0	0.818528	C23	2018-07-11_GS-997.eds
NOS2	C_11889257_10	rs2297518	A2780-T	G/G	0	0.740608	D01	2018-07-11_GS-997.eds
NOS2	C_11889257_10	rs2297518	TOV112-T	A/G	0.685417	0.770813	C02	2018-07-11_GS-997.eds
NOS2	C_11889257_10	rs2297518	SKOV-T	A/G	0.700276	0.780029	C04	2018-07-11_GS-997.eds
NOS2	C_11889257_10	rs2297518	HOSPIC-T	A/G	0.604773	0.599274	C06	2018-07-11_GS-997.eds
NOS2	C_11889257_10	rs2297518	FT33-T	A/G	0.696461	0.764702	C08	2018-07-11_GS-997.eds
NOS2	C_11889257_10	rs2297518	NOC-T	A/G	0.685289	0.770144	C10	2018-07-11_GS-997.eds
NOS2	C_11889257_10	rs2297518	A2780-T	A/G	0.700586	0.782077	C12	2018-07-11_GS-997.eds
NOS2	C_11889257_10	rs2297518	TOV112-T	A/G	0.709069	0.779647	C14	2018-07-11_GS-997.eds
NOS2	C_11889257_10	rs2297518	SKOV-T	A/G	0.691319	0.789883	C16	2018-07-11_GS-997.eds
NOS2	C_11889257_10	rs2297518	HOSPIC-T	A/A	0.782495	0	C18	2018-07-11_GS-997.eds
NOS2	C_11889257_10	rs2297518	FT33-T	A/A	0.78802	0	C20	2018-07-11_GS-997.eds
NOS2	C_11889257_10	rs2297518	NOC-T	A/A	0.790621	0	C22	2018-07-11_GS-997.eds
NOS2	C_11889257_10	rs2297518	NOC-T	A/A	0.778243	0	C24	2018-07-11_GS-997.eds
NOS2	C_11889257_10	rs2297518	CEPH	G/G	0.000000	0.870160	N03	2018-07-11_GS-997.eds
NOS2	C_11889257_10	rs2297518	NTC	N/A	0.000000	0.000000	N05	2018-07-11_GS-997.eds
NOS2	C_11889257_10	rs2297518	SJL	A/G	0.666694	0.761451	N01	2018-07-11_GS-997.eds



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Assay Name	Assay ID	NCBI SNP Ref.	Sample ID	Call	Allele1 (A) Amp Score	Allele2 (G) Amp Score	Experiment Name
SOD3	C_2668728_10	rs2536512	A2780-C	A/A	0.000000	0.000000	2018-07-11_GS-997.eds
SOD3	C_2668728_10	rs2536512	TOV112-C	A/A	0.605730	0.000000	2018-07-11_GS-997.eds
SOD3	C_2668728_10	rs2536512	SKOV-C	A/A	0.000000	0.000000	2018-07-11_GS-997.eds
SOD3	C_2668728_10	rs2536512	HOSPIC-C	A/A	0.532156	0.000000	2018-07-11_GS-997.eds
SOD3	C_2668728_10	rs2536512	FT33-C	A/A	0.000000	0.000000	2018-07-11_GS-997.eds
SOD3	C_2668728_10	rs2536512	NOC-C	A/A	0.576449	0.000000	2018-07-11_GS-997.eds
SOD3	C_2668728_10	rs2536512	A2780-C	A/A	0.000000	0.000000	2018-07-11_GS-997.eds
SOD3	C_2668728_10	rs2536512	TOV112-C	A/A	0.521027	0.000000	2018-07-11_GS-997.eds
SOD3	C_2668728_10	rs2536512	SKOV-C	A/A	0.000000	0.000000	2018-07-11_GS-997.eds
SOD3	C_2668728_10	rs2536512	HOSPIC-C	A/A	0.000000	0.000000	2018-07-11_GS-997.eds
SOD3	C_2668728_10	rs2536512	FT33-C	A/A	0.000000	0.000000	2018-07-11_GS-997.eds
SOD3	C_2668728_10	rs2536512	NOC-C	A/A	0.000000	0.000000	2018-07-11_GS-997.eds
SOD3	C_2668728_10	rs2536512	A2780-T	A/A	0.525351	0.000000	2018-07-11_GS-997.eds
SOD3	C_2668728_10	rs2536512	TOV112-T	A/A	0.524933	0.000000	2018-07-11_GS-997.eds
SOD3	C_2668728_10	rs2536512	SKOV-T	A/A	0.513045	0.000000	2018-07-11_GS-997.eds
SOD3	C_2668728_10	rs2536512	HOSPIC-T	A/A	0.000000	0.000000	2018-07-11_GS-997.eds
SOD3	C_2668728_10	rs2536512	FT33-T	A/A	0.000000	0.000000	2018-07-11_GS-997.eds
SOD3	C_2668728_10	rs2536512	NOC-T	A/A	0.000000	0.000000	2018-07-11_GS-997.eds
SOD3	C_2668728_10	rs2536512	A2780-T	A/A	0.000000	0.000000	2018-07-11_GS-997.eds
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SOD3	C_2668728_10	rs2536512	SKOV-T	A/A	0.000000	0.000000	2018-07-11_GS-997.eds
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SOD3	C_2668728_10	rs2536512	NOC-T	A/A	0.526249	0.000000	2018-07-11_GS-997.eds
SOD3	C_2668728_10	rs2536512	CEPH	A/A	0.000000	0.000000	2018-07-11_GS-997.eds
SOD3	C_2668728_10	rs2536512	NTC	N/A	0.000000	0.000000	2018-07-11_GS-997.eds
SOD3	C_2668728_10	rs2536512	SJL	A/A	0.682456	0.559216	2018-07-11_GS-997.eds



Cell Lines	Gene (rs number)				
	CAT (rs769217)	NOS2 (rs2297518)	GSR (rs8190955)	GPX1 (rs3448)	SOD3 (rs2536512)
A2780- Control	C/C	C/C	G/G	C/T	A/A
A2780- Talc	C/C	C/C	G/G	C/C	A/A
SKOV-3- Control	C/C	C/C	G/G	C/T	A/A
SKOV-3- Talc	C/C	T/T	G/G	C/C	A/A
TOV112D- Control	C/C	C/C	G/G	C/T	A/A
TOV112D-Talc	C/T	C/C	G/G	C/C	A/A
HOSEpiC- Control	C/C	C/C	G/G	C/T	A/A
HOSEpiC- Talc	C/T	T/T	G/G	C/T	A/A
FT33- Control	C/C	C/C	G/G	C/T	A/A
FT33- Talc	C/T	T/T	G/G	C/C	A/A
Normal Ovarian- Control	C/C	C/C	G/G	C/T	A/A
Normal Ovarian- Talc	C/T	T/T	G/G	C/C	A/A

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MTT Cell Proliferation Assay

(Trevigen Gaithersburg, MD)

Cat# 4890-25K



9/4/2018

- Seeded cells 8000 cells/well
- Count cells using the hemacytometer

96 wells Plate design												
	1	2	3	4	5	6	7	8	9	10	11	12
A	A2780 Unt			EL-1Unt								
B	A2780 100ug/ml			EL-1 100ug/ml								
C												
D	SKOV-3 Unt			TOV112 Unt								
E	SKOV-3 100ug/ml			TOV112 100ug/ml								
F												
G	Normal ovarian Unt			FT33 Unt								
H	Normal ovarian 100ug/ml			FT33 100ug/ml								

9/5/2018

- Treat cells with talc

$$x \cdot 10^4 \mu\text{g/ml} = (5\text{ml}) (100\mu\text{g/ml}) \Rightarrow x = 50\mu\text{l}$$

9/6/2018

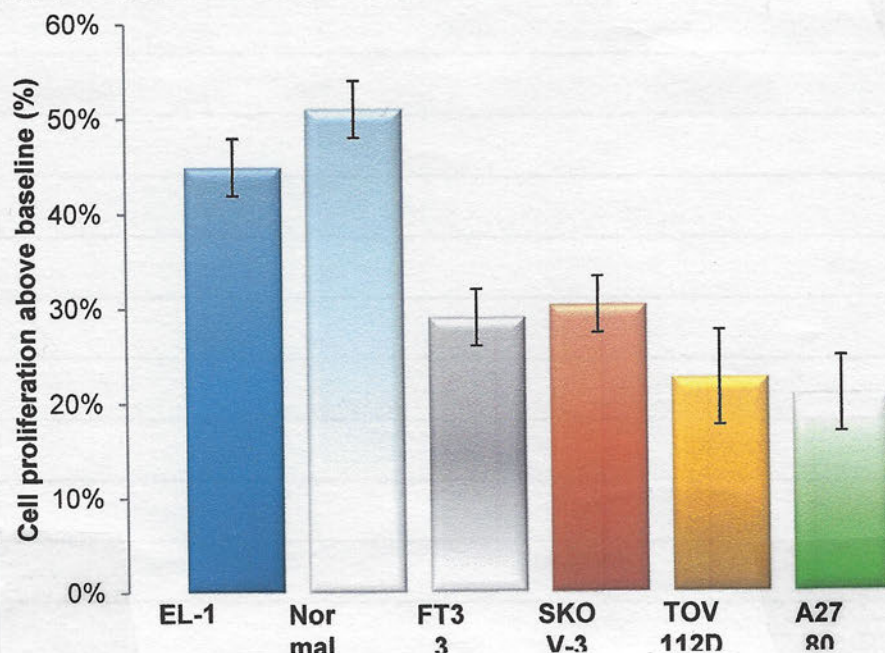
- After 24 hours treatment
- Add 10ul MTT reagent to each well
- Incubate 2 hours in 37°C incubator
 - * For normal cells, incubate more than 2 hours.
 - Check under microscope to make sure has fromanza.
- Next, add Second reagent (SDS-HCl Detergent Reagent)
 - 100ul per well
- Incubate 2~4 hours in 37°C incubator
- Detect at 570nm

Raw data

9/6/2018					
1	2	3	4	5	6
0.1764	0.17	0.1767	0.1616	0.15	0.156
0.212	0.223	0.2261	0.2899	0.2873	0.2719
0.1225	0.1248	0.1232	0.192	0.2087	0.1961
0.2198	0.2126	0.2171	0.2604	0.251	0.2598
0.3042	0.3017	0.3269	0.1383	0.1402	0.1437
0.1593	0.1506	0.1598	0.253	0.2643	0.2539
0.1244	0.1202	0.1282	0.151	0.1541	0.15
0.103	0.115	0.112	0.1411	0.1414	0.1408
0.225	0.2248	0.2232	0.192	0.2087	0.1961

Cell type	OD 1	OD 2	OD 3	Corr 1	Corr 2	Corr 3	Cytotoxicity (%) 1	Cytotoxicity (%) 2	Cytotoxicity (%) 3	Average	SD
A2780 unt	0.1764	0.17	0.1767	0.1764	0.17	0.1767	0%	0%	0%	0%	0%
100 ug/ml	0.212	0.223	0.2261	0.212	0.223	0.2261	17%	24%	22%	20.80%	4%
SKOV unt	0.2198	0.2126	0.2171	0.2198	0.2126	0.2171	0%	0%	0%	0.00%	0%
100 ug/ml	0.3042	0.3017	0.3269	0.3042	0.3017	0.3269	28%	30%	34%	30.29%	3%
TOV112 unt	0.192	0.2087	0.1961	0.192	0.2087	0.1961	0%	0%	0%	0.00%	0%
100 ug/ml	0.2604	0.251	0.2598	0.2604	0.251	0.2598	26%	17%	25%	22.55%	5%
EL-1 unt	0.1616	0.15	0.156	0.1616	0.15	0.156	0%	0%	0%	0.00%	0%
100 ug/ml	0.2899	0.2873	0.2719	0.2899	0.2873	0.2719	44%	48%	43%	44.89%	3%
Normal ovarian unt	0.103	0.115	0.112	0.103	0.115	0.112	0%	0%	0%	0.0%	0%
100 ug/ml	0.225	0.2248	0.2232	0.225	0.2248	0.2232	54%	49%	50%	51.0%	3%
FT33 unt	0.1411	0.1414	0.1408	0.1411	0.1414	0.1408	0%	0%	0%	0.0%	0%
100 ug/ml	0.192	0.2087	0.1961	0.192	0.2087	0.1961	27%	32%	28%	29.0%	3%

MTT Cell Proliferation

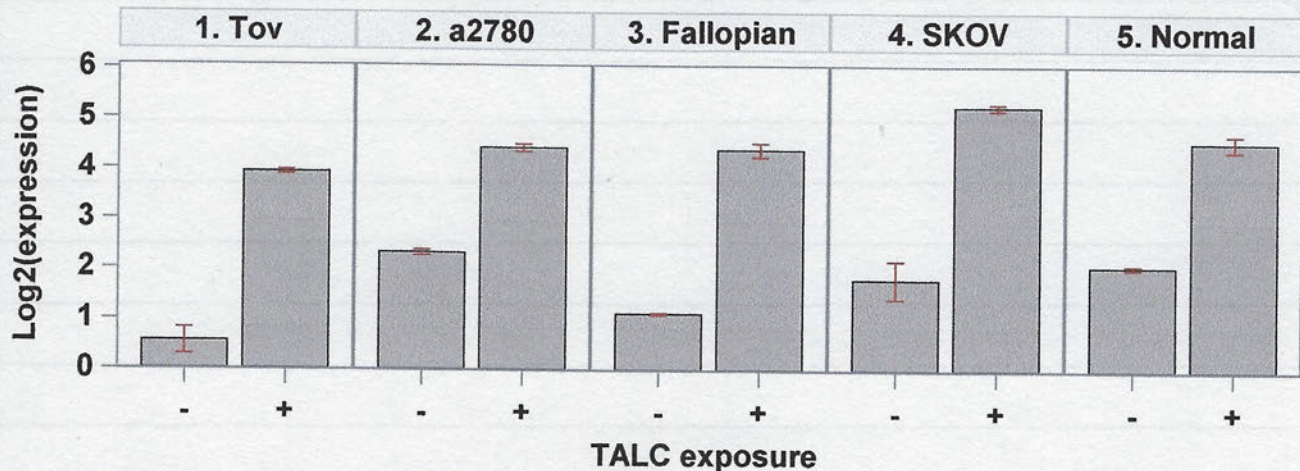


Statistical Analysis

10.6.18

- Normality was examined using the Kolmogorov - Smirnov test and by visual inspection of quantile - quantile plots.
- Because most of the data were not normally distributed, differences in distributions were examined using the Kruskal - Wallis test.
- Generalized linear models were used to examine pairwise differences in estimated least squares means by exposure to 0, 5, 20 or 100 $\mu\text{g}/\text{ml}$ of Talc, with or without Tukey - Kramer adjustment for multiple comparisons.
- Analyte expression values were \log_2 transformed after adding a numeric constant "1" to avoid negative values.
- P-values below 0.05 was considered statistically significant

CA125



Mean +/- Standard Deviation Log2(Marker) Expression with and without exposure to TALC [Note: The data were \log_2 transformed after adding a numeric constant ('1') to avoid negative transformed expression values]

Mean Std Med iQr

PCR

PCR									
Analysis Variable : log2expPlusOne									
Cell_line	Marker	exposure	N Obs	Mean	Std Dev	Std Error	Median	25th Pctl	75th Pctl
A2780	CAT	i. 0 ug/ml	3	3.6669399	0.0866785	0.0500438	3.6474296	3.5916794	3.7617108
		ii. 5 ug/m	3	3.551069	0.0962913	0.0555938	3.5008021	3.4903134	3.6620915
		iii. 20 ug	3	3.0529977	0.0522557	0.0301698	3.0282155	3.0177438	3.1130337
		iv. 100 ug	3	2.3093358	0.0943387	0.0544665	2.2871768	2.228049	2.4127815
	GSR	i. 0 ug/ml	3	2.4390697	0.0218641	0.0126233	2.448108	2.4141355	2.4549655
		ii. 5 ug/m	3	2.3042019	0.0085862	0.0049573	2.2992447	2.2992447	2.3141164
		iii. 20 ug	3	1.8875253	0	0	1.8875253	1.8875253	1.8875253
		iv. 100 ug	3	1.4494482	0.0470991	0.0271927	1.4766409	1.3950628	1.4766409
	GST	i. 0 ug/ml	3	2.8387682	0.028132	0.016242	2.8225262	2.8225262	2.8712523
		ii. 5 ug/m	3	2.5891539	0.0820301	0.0473601	2.5604704	2.5253172	2.6816741
		iii. 20 ug	3	2.1458805	0.1374958	0.0793832	2.1528324	2.0050406	2.2797684
		iv. 100 ug	3	1.4536326	0.1735074	0.1001745	1.421156	1.2986583	1.6410836
	MPO	i. 0 ug/ml	3	4.4203917	0.3911882	0.2258526	4.4919172	3.9983761	4.7708819
		ii. 5 ug/m	3	5.4678059	0.0287839	0.0166184	5.4783894	5.4352285	5.4897998
		iii. 20 ug	3	6.1434159	0.0387315	0.0223617	6.1642432	6.0987269	6.1672776
		iv. 100 ug	3	6.5277399	0.0576635	0.0332921	6.5248159	6.4715939	6.5868098
	NO2	i. 0 ug/ml	3	4.0269499	0.0465503	0.0268758	4.0362396	3.9764553	4.0681549
		ii. 5 ug/m	3	4.3957668	0.0386617	0.0223213	4.3782342	4.3689778	4.4400884
		iii. 20 ug	3	4.7555891	0.0207424	0.0119757	4.7457751	4.7415748	4.7794173
		iv. 100 ug	3	5.4497071	0.3718927	0.2147123	5.2435548	5.2265471	5.8790195
	SOD	i. 0 ug/ml	3	4.7346013	0.0833955	0.0481484	4.7342219	4.6513962	4.8181859
		ii. 5 ug/m	3	4.3928697	0.1958249	0.1130596	4.3761514	4.2059398	4.5965178
		iii. 20 ug	3	3.382088	0.2905107	0.1677264	3.3589588	3.1038333	3.6834719
		iv. 100 ug	3	2.7808886	0.0229483	0.0132492	2.7924389	2.75446	2.7957669
EL-1	CAT	i. 0 ug/ml	3	4.6347343	0.007743	0.0044704	4.6320937	4.628657	4.6434522
		ii. 5 ug/m	3	4.4475437	0.0185819	0.0107283	4.4570689	4.4261305	4.4594316
		iii. 20 ug	3	3.9117219	0.0631814	0.0364778	3.891322	3.8612606	3.9825829
		iv. 100 ug	3	3.4137774	0.085582	0.0494108	3.3686287	3.3602238	3.5124797
	GSR	i. 0 ug/ml	3	3.1584852	0.0170451	0.009841	3.1529946	3.1448621	3.1775989
		ii. 5 ug/m	3	2.8776443	0.0207752	0.0119946	2.8710551	2.8609628	2.9009151
		iii. 20 ug	3	2.3091592	0.0085862	0.0049573	2.3141164	2.2992447	2.3141164
		iv. 100 ug	3	1.6341862	0.0494412	0.0285449	1.650305	1.5786972	1.6735564
	GST	i. 0 ug/ml	3	2.5764269	0.0731098	0.0422099	2.6095186	2.4926223	2.6271399
		ii. 5 ug/m	3	2.1904434	0.0169111	0.0097636	2.1906149	2.1734473	2.2072682
		iii. 20 ug	3	2.0394084	0.1873334	0.108157	2.1384868	1.8233418	2.1563966
		iv. 100 ug	3	1.2697114	0.1463694	0.0845064	1.2986583	1.1110313	1.3994446
	MPO	i. 0 ug/ml	3	6.3838911	0.190338	0.1098917	6.3861557	6.1924309	6.5730867
		ii. 5 ug/m	3	6.6957103	0.0395005	0.0228056	6.6743477	6.6714915	6.7412917
		iii. 20 ug	3	6.9337227	0.0236576	0.0136587	6.9360372	6.908993	6.956138
		iv. 100 ug	3	7.1102543	0.0261662	0.0151071	7.1212745	7.0803805	7.1291078
	NO2	i. 0 ug/ml	3	3.6938228	0.1276474	0.0736972	3.7208257	3.5548344	3.8058083
		ii. 5 ug/m	3	4.2260657	0.1170831	0.0675979	4.2039842	4.1215957	4.3526173
		iii. 20 ug	3	5.1669652	0.0562575	0.0324803	5.1839628	5.1041689	5.2127639
		iv. 100 ug	3	5.4177992	0.0803845	0.04641	5.41792	5.3373543	5.4981232
	SOD	i. 0 ug/ml	3	5.456788	0.3237203	0.1869	5.4515079	5.1357401	5.7831161
		ii. 5 ug/m	3	4.6439809	0.011235	0.0064865	4.6374943	4.6374943	4.6569539
		iii. 20 ug	3	3.9340229	0.0675847	0.03902	3.9214363	3.8736164	4.0070161
		iv. 100 ug	3	3.6529395	0.0577189	0.033324	3.6507646	3.5963389	3.7117151
FT33	CAT	i. 0 ug/ml	3	4.7632398	0.0189612	0.0109473	4.753658	4.7509816	4.7850797
		ii. 5 ug/m	3	4.5434772	0.0186948	0.0107935	4.5531147	4.5219302	4.5553867
		iii. 20 ug	3	3.9261712	0.0739331	0.0426853	3.9585643	3.8415706	3.9783787
		iv. 100 ug	3	3.3119478	0.0452928	0.0261498	3.3033424	3.2715751	3.3609261
	GSR	i. 0 ug/ml	3	2.6664232	0.0114767	0.0066261	2.6665294	2.6548938	2.6778465
		ii. 5 ug/m	3	2.2891742	0.0174426	0.0100705	2.2992447	2.2690331	2.2992447
		iii. 20 ug	3	1.8739905	0.0305612	0.0176445	1.8675012	1.8471952	1.9072753
		iv. 100 ug	3	1.0007073	0.0565114	0.0326268	1.0136409	0.9388503	1.0496308
	GST	i. 0 ug/ml	3	2.7078651	0.0109679	0.0063323	2.7125958	2.6953257	2.7156738
		ii. 5 ug/m	3	2.311642	0.0154105	0.0088972	2.3109217	2.2966042	2.3273999
		iii. 20 ug	3	1.9325492	0.0083186	0.0048027	1.9328171	1.9240999	1.9407306
		iv. 100 ug	3	1.0931968	0.1387384	0.0801006	1.1130337	0.9456077	1.220949
	MPO	i. 0 ug/ml	3	3.6837367	0.0521848	0.0301289	3.6595821	3.6480052	3.7436227
		ii. 5 ug/m	3	2.4202895	0.2581914	0.1490669	2.3527585	2.2025744	2.7055356
		iii. 20 ug	3	3.4310737	0.383192	0.221236	3.4238471	3.0515461	3.8178279
		iv. 100 ug	3	2.4868309	0.5736839	0.3312165	2.5043662	1.9045804	3.0515461
	NO2	i. 0 ug/ml	3	2.979957	0.1311209	0.0757027	3.0428194	2.8292407	3.0678108
		ii. 5 ug/m	3	4.2315124	0.1109416	0.0640522	4.211791	4.1317541	4.3509922
		iii. 20 ug	3	5.0433074	0.0505578	0.0291896	5.0403226	4.9943082	5.0952915
		iv. 100 ug	3	5.2273225	0.0176408	0.0101849	5.2222636	5.2127639	5.2469401
	SOD	i. 0 ug/ml	3	4.2502737	0.1042203	0.0601716	4.2540649	4.1442096	4.3525467
		ii. 5 ug/m	3	3.5078828	0.0672157	0.038807	3.4736571	3.4646683	3.5853231
		iii. 20 ug	3	2.5079502	0.0562015	0.032448	2.4985062	2.4570689	2.5682754

ROR

		iv. 100 ug	3	1.9444382	0.0880196	0.0508182	1.937721	1.8599695	2.0356239
NOE	CAT	i. 0 ug/ml	3	3.710353	0.048923	0.0282457	3.7026575	3.6657338	3.7628677
		ii. 5 ug/m	3	3.4435567	0.0146987	0.0084863	3.4408193	3.4304191	3.4594316
		iii. 20 ug	3	3.0660752	0.0478082	0.0276021	3.0499792	3.0283923	3.1198541
		iv. 100 ug	3	2.4488001	0.0523535	0.0302263	2.4709273	2.3890161	2.486457
	GSR	i. 0 ug/ml	3	3.2666551	0.0315951	0.0182414	3.2567088	3.24123	3.3020265
		ii. 5 ug/m	3	2.9555529	0.0239087	0.0138037	2.9588427	2.9301696	2.9776463
		iii. 20 ug	3	2.6352146	0.0180554	0.0104243	2.6313371	2.619413	2.6548938
		iv. 100 ug	3	2.2382223	0.0154412	0.008915	2.2381754	2.2228046	2.2536868
	GST	i. 0 ug/ml	3	2.4084654	0.3030423	0.1749615	2.5675454	2.0590091	2.5988416
		ii. 5 ug/m	3	1.9560063	0.0358575	0.0207023	1.9437338	1.9278965	1.9963887
		iii. 20 ug	3	1.4784648	0.0929867	0.0536859	1.5265697	1.3712801	1.5375446
		iv. 100 ug	3	0.7539717	0.0296043	0.0170921	0.7432995	0.7311832	0.7874325
	MPO	i. 0 ug/ml	3	3.3801234	0.0349896	0.0202012	3.3804524	3.3449705	3.4149473
		ii. 5 ug/m	3	2.709032	0.4784764	0.2762485	2.7710404	2.2025744	3.1534811
		iii. 20 ug	3	2.9606787	0.0339471	0.0195994	2.9703015	2.922959	2.9887756
		iv. 100 ug	3	2.8974492	0.2328767	0.1344514	2.8641366	2.6830227	3.1451883
	NO2	i. 0 ug/ml	3	3.7243216	0.0501246	0.0289395	3.7086287	3.683921	3.7804151
		ii. 5 ug/m	3	4.394039	0.0368408	0.0212701	4.375943	4.3697456	4.4364284
		iii. 20 ug	3	4.928477	0.0549816	0.0317436	4.9279438	4.873764	4.9837233
		iv. 100 ug	3	5.5337093	0.0347537	0.0200651	5.5276334	5.5023943	5.5711003
	SOD	i. 0 ug/ml	3	3.9632817	0.1567405	0.0904942	3.9799339	3.79888	4.1110313
		ii. 5 ug/m	3	3.5676281	0.0822589	0.0474922	3.5279461	3.5127326	3.6622055
		iii. 20 ug	3	2.6525607	0.0620037	0.0357978	2.6782973	2.5818333	2.6975514
		iv. 100 ug	3	2.3672706	0.0899191	0.0519148	2.3631711	2.2794713	2.4591693
SKOV-3	CAT	i. 0 ug/ml	3	3.8929757	0.1268283	0.0732244	3.9657843	3.7465278	3.966615
		ii. 5 ug/m	3	3.5294147	0.108096	0.0624093	3.4767705	3.4577256	3.6537479
		iii. 20 ug	3	3.2783228	0.1368648	0.079019	3.2509618	3.1572054	3.4268015
		iv. 100 ug	3	2.2973771	0.0509856	0.0294365	2.3193289	2.2390925	2.33371
	GSR	i. 0 ug/ml	3	3.0022571	0.0104774	0.0060491	2.9962079	2.9962079	3.0143553
		ii. 5 ug/m	3	2.4277015	0.0273508	0.015791	2.4278743	2.4002647	2.4549655
		iii. 20 ug	3	2.2841653	0.0151058	0.0087214	2.284218	2.2690331	2.2992447
		iv. 100 ug	3	1.7840822	0.0427295	0.0246699	1.784504	1.7411434	1.8265993
	GST	i. 0 ug/ml	3	2.7222988	0.0512982	0.0296171	2.7422218	2.6640277	2.7606468
		ii. 5 ug/m	3	2.4610932	0.0675923	0.0390245	2.4926223	2.3834969	2.5071603
		iii. 20 ug	3	2.1321947	0.11075	0.0639415	2.1839628	2.0050406	2.2075805
		iv. 100 ug	3	1.5233864	0.0812994	0.0469382	1.5533605	1.4313555	1.5854433
	MPO	i. 0 ug/ml	3	4.3390025	0.0414058	0.0239057	4.3382105	4.2979984	4.3807987
		ii. 5 ug/m	3	5.796017	0.0163462	0.0094375	5.8048022	5.7771567	5.806092
		iii. 20 ug	3	6.362497	0.0311108	0.0179619	6.3553159	6.3356047	6.3965705
		iv. 100 ug	3	6.9682174	0.0006784	0.0003917	6.9678257	6.9678257	6.9690008
	NO2	i. 0 ug/ml	3	4.0903869	0.0303827	0.0175415	4.1030779	4.0557163	4.1123665
		ii. 5 ug/m	3	4.3082108	0.0500746	0.0289106	4.3192566	4.2535355	4.3518403
		iii. 20 ug	3	4.7683444	0.0337166	0.0194663	4.760008	4.7395781	4.8054472
		iv. 100 ug	3	5.2241662	0.0317886	0.0183531	5.2131917	5.199319	5.259988
	SOD	i. 0 ug/ml	3	4.6762514	0.1489147	0.0859759	4.6402739	4.5486216	4.8398588
		ii. 5 ug/m	3	4.119983	0.0126658	0.0073126	4.1171963	4.1089426	4.1338101
		iii. 20 ug	3	3.4742309	0.1798399	0.1038306	3.4603494	3.301734	3.6606092
		iv. 100 ug	3	2.8485275	0.0898049	0.0518489	2.8341044	2.7668072	2.9446711
TOV-112	CAT	i. 0 ug/ml	3	3.9367605	0.0147273	0.0085028	3.9307373	3.9259994	3.9535446
		ii. 5 ug/m	3	3.6047714	0.0070956	0.0040967	3.602053	3.5994368	3.6128243
		iii. 20 ug	3	2.9234085	0.0367419	0.021213	2.9305481	2.8836208	2.9560567
		iv. 100 ug	3	2.3772379	0.1346644	0.0777486	2.4138648	2.228049	2.4897998
	GSR	i. 0 ug/ml	3	2.3574049	0.0430757	0.0248698	2.3578335	2.3141164	2.4002647
		ii. 5 ug/m	3	2.1636806	0.011926	0.0068855	2.1705661	2.1499097	2.1705661
		iii. 20 ug	3	1.6028306	0.0239891	0.0138501	1.6031219	1.5786972	1.6266728
		iv. 100 ug	3	1.3281956	0.0169756	0.0098009	1.3379965	1.3085939	1.3379965
	GST	i. 0 ug/ml	3	2.6358633	0.1267042	0.0731527	2.6594679	2.4990167	2.7491051
		ii. 5 ug/m	3	2.2357771	0.0874612	0.0504957	2.1940871	2.176961	2.3362834
		iii. 20 ug	3	1.5685321	0.1467886	0.0847485	1.5509007	1.4313555	1.7233401
		iv. 100 ug	3	0.9064238	0.1433487	0.0827624	0.8519988	0.7982579	1.0690147
	MPO	i. 0 ug/ml	3	3.8316651	0.1626979	0.0939337	3.8646319	3.6550083	3.975355
		ii. 5 ug/m	3	4.7174873	0.1407705	0.0812739	4.7681843	4.5583901	4.8258874
		iii. 20 ug	3	5.2355859	0.0746043	0.0430728	5.2271635	5.1655502	5.3140439
		iv. 100 ug	3	6.4598527	0.02951	0.0170376	6.4509143	6.4358452	6.4927986
	NO2	i. 0 ug/ml	3	3.8861832	0.10971	0.0633411	3.8598702	3.7920224	4.0066571
		ii. 5 ug/m	3	4.5915294	0.1000141	0.0577432	4.5760383	4.5001647	4.6983852
		iii. 20 ug	3	4.3025066	0.0619684	0.0357775	4.3112125	4.2366457	4.3596617
		iv. 100 ug	3	5.1023523	0.1002657	0.0578885	5.1231695	4.9933121	5.1905754
	SOD	i. 0 ug/ml	3	5.0677115	0.0207012	0.0119519	5.0557596	5.0557596	5.0916152
		ii. 5 ug/m	3	4.34704	0.1709547	0.0987007	4.3431235	4.1780772	4.5199193
		iii. 20 ug	3	3.360278	0.1217664	0.0703019	3.33371	3.2539893	3.4931349
		iv. 100 ug	3	2.8462591	0.0881635	0.0509012	2.8308638	2.7668072	2.9411063

Mean Std Med iQR

ELISA

ELISA									
Analysis Variable : log2expPlusOne									
Cell_Line	Marker	exposure	N Obs	Mean	Std Dev	Std Error	Median	25th Pctl	75th Pctl
A2780	CAT	i. 0 ug/ml	3	4.2574633	3.6874777	2.1289663	6.3314549	0	6.4409351
		ii. 5 ug/m	3	5.9586593	0.1269159	0.0732749	6.0147182	5.8133665	6.0478932
		iii. 20 ug	3	5.4206681	0.1545027	0.0892022	5.4420085	5.2566045	5.5633913
		iv. 100 ug	3	3.3871439	0.1580791	0.091267	3.3030442	3.2888925	3.5694949
	GSR	i. 0 ug/ml	3	2.9264839	0.0560937	0.0323857	2.9565767	2.8617654	2.9611097
		ii. 5 ug/m	3	1.8449006	0.5332502	0.3078721	2.1104274	1.2310163	2.1932582
		iii. 20 ug	3	2.6310649	0.1962989	0.1133332	2.5669484	2.4748412	2.8514049
		iv. 100 ug	3	1.9299141	0.1596065	0.0921488	1.9115039	1.780311	2.0979273
	GSTp1	i. 0 ug/ml	3	5.7815173	0.592863	0.3422896	5.6515447	5.2644238	6.4285833
		ii. 5 ug/m	3	5.2209741	0.0698484	0.040327	5.2357195	5.1449303	5.2822726
		iii. 20 ug	3	4.4893251	0.200935	0.1160099	4.5497155	4.2651206	4.6531392
		iv. 100 ug	3	2.864807	0.1177024	0.0679555	2.9145098	2.7304062	2.9495049
	MPO	i. 0 ug/ml	3	0.1695431	0.0354213	0.0204505	0.1615308	0.1388142	0.2082842
		ii. 5 ug/m	3	0.3337243	0.043782	0.0252776	0.3514984	0.2838504	0.3658241
		iii. 20 ug	3	0.4814097	0.0205819	0.0118829	0.4910932	0.4577721	0.4953639
		iv. 100 ug	3	0.9288378	0.0655643	0.0378536	0.9442591	0.8569375	0.985317
	SOD3	i. 0 ug/ml	3	1.6356913	0.0687084	0.0396688	1.6205848	1.5757932	1.7106959
		ii. 5 ug/m	3	1.3851168	0.0391983	0.0226312	1.3644345	1.3605913	1.4303248
		iii. 20 ug	3	1.0724011	0.0370578	0.0213953	1.087577	1.0301642	1.099462
		iv. 100 ug	3	0.571832	0.0450738	0.0260234	0.5822635	0.522457	0.6107754
	iNOS	i. 0 ug/ml	3	2.6881765	0.0984259	0.0568262	2.6911032	2.5883199	2.7851065
		ii. 5 ug/m	3	3.2130977	0.0487256	0.0281317	3.1855487	3.1843872	3.2693572
		iii. 20 ug	3	4.1128539	0.0650274	0.0375436	4.0981837	4.0564148	4.1839633
		iv. 100 ug	3	4.5493201	0.0334892	0.019335	4.5523704	4.51441	4.5811798
EL1	CAT	i. 0 ug/ml	3	6.3300792	1.0158524	0.5865026	6.8414955	5.1601522	6.9885899
		ii. 5 ug/m	3	6.4719538	0.2664051	0.153809	6.4819999	6.2006678	6.7331937
		iii. 20 ug	3	5.8725758	0.0690101	0.039843	5.8562776	5.8131736	5.9482761
		iv. 100 ug	3	5.2392866	0.172504	0.0995952	5.2924379	5.0464616	5.3789602
	GSR	i. 0 ug/ml	3	5.1198603	0.2068003	0.1193962	5.0403859	4.9645866	5.3546084
		ii. 5 ug/m	3	4.1921745	0.5224649	0.3016452	4.4293835	3.5931864	4.5539537
		iii. 20 ug	3	2.2632358	0.0992817	0.0573203	2.2588513	2.166219	2.3646371
		iv. 100 ug	3	2.6260068	0.112917	0.0651927	2.6324997	2.5099835	2.7355373
	GSTp1	i. 0 ug/ml	3	5.3269582	0.0255202	0.0147341	5.3210982	5.3048777	5.3548988
		ii. 5 ug/m	3	4.3978426	0.3052705	0.176248	4.4171413	4.0833807	4.6930059
		iii. 20 ug	3	4.7882778	0.0915836	0.0528758	4.8217331	4.6846702	4.8584299
		iv. 100 ug	3	4.6385363	0.3957429	0.2284823	4.47636	4.3496426	5.0896064
	MPO	i. 0 ug/ml	3	0.590605	0.0020024	0.0011561	0.5916646	0.5882954	0.591855
		ii. 5 ug/m	3	0.4965263	0.1202534	0.0694283	0.5295436	0.3632133	0.5968221
		iii. 20 ug	3	0.7353674	0.034122	0.0197003	0.7317707	0.7031862	0.7711452
		iv. 100 ug	3	2.6882919	0.1356558	0.0783209	2.7400205	2.5343823	2.790473
	SOD3	i. 0 ug/ml	3	1.9403529	0.0038349	0.0022141	1.9423824	1.9359298	1.9427466
		ii. 5 ug/m	3	1.782667	0.0262256	0.0151413	1.7894473	1.753717	1.8048365
		iii. 20 ug	3	1.402393	0.0115761	0.0066835	1.4011151	1.3915089	1.4145551
		iv. 100 ug	3	1.0514554	0.0420738	0.0242913	1.0329162	1.0218349	1.099615
	iNOS	i. 0 ug/ml	3	1.1485613	0.0486258	0.0280741	1.1221945	1.1188138	1.2046757
		ii. 5 ug/m	3	1.8412055	0.0516723	0.029833	1.822735	1.8013068	1.8995748
		iii. 20 ug	3	3.0092736	0.0421275	0.0243223	3.0097882	2.9668911	3.0511415
		iv. 100 ug	3	4.5040677	0.0646358	0.0373175	4.5045345	4.4391998	4.5644688
FT33	CAT	i. 0 ug/ml	3	5.9332377	0.1536457	0.0887074	5.9078581	5.793862	6.097993
		ii. 5 ug/m	3	5.5351585	0.030892	0.0178355	5.523883	5.5114881	5.5701043
		iii. 20 ug	3	4.9708572	0.0418055	0.0241364	4.9772722	4.926215	5.0090845
		iv. 100 ug	3	2.4514373	0.1291939	0.0745902	2.5223921	2.3023151	2.5296046
	GSR	i. 0 ug/ml	3	3.5339647	0.0598797	0.0345715	3.504263	3.4947421	3.6028889
		ii. 5 ug/m	3	2.8607994	0.0235767	0.013612	2.8650113	2.8354007	2.8819864
		iii. 20 ug	3	2.0278518	0.0290597	0.0167776	2.0378526	1.9951124	2.0505904
		iv. 100 ug	3	1.8968547	0.0231513	0.0133664	1.8984466	1.8729485	1.919169
	GSTp1	i. 0 ug/ml	3	4.7361471	0.107903	0.0622978	4.7079212	4.6451624	4.8553578
		ii. 5 ug/m	3	4.327875	0.1985287	0.1146206	4.4131073	4.1009622	4.4695555
		iii. 20 ug	3	4.1330676	0.0801956	0.0463009	4.1048166	4.0708207	4.2235655
		iv. 100 ug	3	3.7795494	0.0577846	0.0333619	3.7815482	3.7207913	3.8363086
	MPO	i. 0 ug/ml	3	0.1080559	0.0087403	0.0050462	0.1056055	0.1008025	0.1177599
		ii. 5 ug/m	3	0.1422642	0.0022615	0.0013057	0.1421418	0.1400664	0.1445843
		iii. 20 ug	3	0.0365338	0.0050604	0.0029216	0.0377899	0.0309636	0.0408479
		iv. 100 ug	3	0.0562339	0.0028877	0.0016672	0.0576544	0.052911	0.0581361
	SOD3	i. 0 ug/ml	3	1.5787641	0.0592452	0.0342053	1.6055748	1.5108529	1.6198646
		ii. 5 ug/m	3	1.2077143	0.0591121	0.0341284	1.2189842	1.1437785	1.2603801
		iii. 20 ug	3	1.1026223	0.0814474	0.0470237	1.1148175	1.015765	1.1772845
		iv. 100 ug	3	0.2736437	0.0096006	0.0055429	0.2790651	0.2625588	0.2793072
	iNOS	i. 0 ug/ml	3	2.1834173	0.165584	0.00956	2.184654	2.1662753	2.1993227
		ii. 5 ug/m	3	3.0461442	0.0574143	0.0331482	3.0523119	2.9858951	3.1002257
		iii. 20 ug	3	3.8189895	0.0382527	0.0220852	3.807153	3.7880542	3.8617614

ELISA

		iv. 100 ug	3	4.3384287	0.0174581	0.0100794	4.3344887	4.3232772	4.3575201
NOE	CAT	i. 0 ug/ml	3	6.7716206	0.013433	0.0077555	6.7743003	6.7570498	6.7835118
		ii. 5 ug/m	3	5.1019337	0.1200419	0.0693062	5.0744766	4.9979991	5.2333255
		iii. 20 ug	3	4.2849863	0.197989	0.114309	4.3209484	4.0714811	4.4625294
		iv. 100 ug	3	2.4565889	0.0742726	0.0428813	2.438142	2.3932782	2.5383465
	GSR	i. 0 ug/ml	3	3.494584	0.0675773	0.0390158	3.5123609	3.4198952	3.5514958
		ii. 5 ug/m	3	3.2496606	0.2901599	0.1675239	3.3439705	2.924078	3.4809333
		iii. 20 ug	3	2.4497142	0.1566082	0.0904178	2.4748103	2.2820734	2.592259
		iv. 100 ug	3	2.3945716	0.0941968	0.0543846	2.4130934	2.2924896	2.4781317
	GSTp1	i. 0 ug/ml	3	6.3242069	0.0418843	0.0241819	6.3136459	6.2886139	6.3703609
		ii. 5 ug/m	3	5.8542165	0.0546727	0.0315653	5.8698997	5.7934162	5.8993337
		iii. 20 ug	3	4.9553189	0.1116465	0.0644591	4.9305681	4.8581248	5.0772639
		iv. 100 ug	3	3.5904539	0.0051691	0.0029844	3.591323	3.5849054	3.5951334
	MPO	i. 0 ug/ml	3	0.1295906	0.0072796	0.0042029	0.128816	0.1227292	0.1372265
		ii. 5 ug/m	3	0.0362084	0.0013902	0.00080262	0.0364896	0.0346991	0.0374365
		iii. 20 ug	3	0.0595687	0.0059828	0.0034542	0.0565222	0.0557223	0.0664616
		iv. 100 ug	3	0.0897481	0.0032252	0.0018621	0.0898807	0.0864586	0.0929051
	SOD3	i. 0 ug/ml	3	1.6738695	0.0447064	0.0258113	1.6922109	1.6229094	1.7064883
		ii. 5 ug/m	3	1.47609	0.0516773	0.0298359	1.4920505	1.4183153	1.5179043
		iii. 20 ug	3	1.1836494	0.0408426	0.0235805	1.20437	1.1365998	1.2099785
		iv. 100 ug	3	0.6498753	0.0215272	0.0124287	0.6443161	0.6316729	0.6736367
	INOS	i. 0 ug/ml	3	2.8443782	0.043948	0.0253734	2.8627272	2.7942292	2.8761783
		ii. 5 ug/m	3	3.5390046	0.0471559	0.0272254	3.5516972	3.4868014	3.578515
		iii. 20 ug	3	4.0982555	0.0313536	0.018102	4.0809164	4.0794012	4.1344489
		iv. 100 ug	3	4.7720961	0.0576565	0.033288	4.791697	4.7071946	4.8173966
SKOV3	CAT	i. 0 ug/ml	3	6.2349114	0.0800568	0.0462208	6.1902817	6.1871175	6.327335
		ii. 5 ug/m	3	5.1019337	0.1200419	0.0693062	5.0744766	4.9979991	5.2333255
		iii. 20 ug	3	4.2849863	0.197989	0.114309	4.3209484	4.0714811	4.4625294
		iv. 100 ug	3	2.299037	0.1027968	0.05935084	2.8653202	1.1124302	2.9193605
	GSR	i. 0 ug/ml	3	3.494584	0.0675773	0.0390158	3.5123609	3.4198952	3.5514958
		ii. 5 ug/m	3	3.2496606	0.2901599	0.1675239	3.3439705	2.924078	3.4809333
		iii. 20 ug	3	2.4497142	0.1566082	0.0904178	2.4748103	2.2820734	2.592259
		iv. 100 ug	3	2.3945716	0.0941968	0.0543846	2.4130934	2.2924896	2.4781317
	GSTp1	i. 0 ug/ml	3	6.9973966	0.0983728	0.0567955	6.9492458	6.9323747	7.1105692
		ii. 5 ug/m	3	6.3242069	0.0418843	0.0241819	6.3136459	6.2886139	6.3703609
		iii. 20 ug	3	5.4134255	0.074402	0.042956	5.4350046	5.3306191	5.4746527
		iv. 100 ug	3	5.0327546	0.0887407	0.0512345	5.0772639	4.9305681	5.0904318
	MPO	i. 0 ug/ml	3	0.0691673	0.0126831	0.0073226	0.0632442	0.0605294	0.0837284
		ii. 5 ug/m	3	0.1206415	0.0148581	0.0085783	0.128816	0.103491	0.1296173
		iii. 20 ug	3	0.304674	0.0379414	0.0219055	0.3196048	0.2615385	0.3328788
		iv. 100 ug	3	0.8643402	0.18529	0.1069772	0.9375621	0.6536279	1.0018307
	SOD3	i. 0 ug/ml	3	1.6647907	0.0693283	0.0400267	1.6266476	1.6229094	1.744815
		ii. 5 ug/m	3	1.4793007	0.0463265	0.0267466	1.4857385	1.430092	1.5220717
		iii. 20 ug	3	1.1773978	0.1118808	0.0645944	1.2283631	1.0491085	1.2547219
		iv. 100 ug	3	0.5292229	0.1245649	0.0719176	0.5776365	0.3877194	0.6223127
	INOS	i. 0 ug/ml	3	2.9574573	0.0279231	0.0161214	2.9656585	2.926352	2.9803614
		ii. 5 ug/m	3	3.7412353	0.0213938	0.0123517	3.749426	3.7169563	3.7573236
		iii. 20 ug	3	4.3598372	0.0494917	0.028574	4.3573902	4.3116144	4.410507
		iv. 100 ug	3	4.7566821	0.1622307	0.093664	4.6696177	4.6565702	4.9438585
TOV112	CAT	i. 0 ug/ml	3	5.9325442	0.2328765	0.1344513	5.982594	5.6787121	6.1363265
		ii. 5 ug/m	3	5.5465926	0.223311	0.0128929	5.5472347	5.5239473	5.5685957
		iii. 20 ug	3	4.9538929	0.0387127	0.0223308	4.9463705	4.9194934	4.9958148
		iv. 100 ug	3	2.1420073	0.6212806	0.3586965	2.1110408	1.5367891	2.7781921
	GSR	i. 0 ug/ml	3	3.5339647	0.0598797	0.0345715	3.504263	3.4947421	3.6028889
		ii. 5 ug/m	3	2.8607994	0.0235767	0.013612	2.8650113	2.8354007	2.8819864
		iii. 20 ug	3	2.0278518	0.0290597	0.0167776	2.0378526	1.9951124	2.0505904
		iv. 100 ug	3	1.8968547	0.0231513	0.0133664	1.8984466	1.8729485	1.919169
	GSTp1	i. 0 ug/ml	3	5.2904247	0.2022888	0.1167915	5.3850267	5.0581679	5.4280794
		ii. 5 ug/m	3	5.0424775	0.0018888	0.0010905	5.0427937	5.0404505	5.0441882
		iii. 20 ug	3	4.7361471	0.107903	0.0622978	4.7079212	4.6451624	4.8553578
		iv. 100 ug	3	3.6942247	0.3135182	0.1810098	3.8317863	3.3354416	3.915446
	MPO	i. 0 ug/ml	3	0.2017849	0.0284656	0.0164346	0.1910605	0.1802392	0.2340549
		ii. 5 ug/m	3	0.4599654	0.0232861	0.0134442	0.4592672	0.4370363	0.4835927
		iii. 20 ug	3	0.8324438	0.050639	0.0292364	0.8104804	0.7964946	0.8903565
		iv. 100 ug	3	1.0260856	0.0144816	0.008361	1.0231644	1.0132873	1.0418052
	SOD3	i. 0 ug/ml	3	1.5117596	0.1226454	0.0708093	1.4920118	1.4001863	1.6430806
		ii. 5 ug/m	3	1.2403551	0.0442127	0.0255262	1.2624133	1.1894533	1.2691989
		iii. 20 ug	3	1.1290264	0.0969399	0.0559683	1.1305428	1.0313372	1.2251992
		iv. 100 ug	3	0.2597342	0.0132534	0.0076519	0.2570575	0.2480234	0.2741217
	INOS	i. 0 ug/ml	3	2.1677451	0.0419739	0.0242337	2.1804552	2.1208851	2.2018949
		ii. 5 ug/m	3	3.0249777	0.1401724	0.0809286	3.0523119	2.8731515	3.1494697
		iii. 20 ug	3	3.7687098	0.049076	0.028334	3.7439537	3.7369426	3.8252331
		iv. 100 ug	3	4.2847345	0.0758406	0.0437866	4.2626797	4.2223657	4.3691579

- Non-parametric Kruskal-Wallis test for differences in distributions of each marker by exposure group;
- $P < 0.05$ indicates to reject the null hypothesis that there is no difference in expression among the four exposure groups.

PCR				ELISA			
Cell_Line	Marker	Kruskal-Wallis	Nominal P-value, Kruskal-Wallis Test	Cell_Line	Marker	Kruskal-Wallis	Nominal P-value, Kruskal-Wallis Test
A2780	CAT	4.85	0.18	A2780	CAT	9.67	0.02
	GSR	9.46	0.02		GSR	10.61	0.01
	GSTp1	9.97	0.02		GST	10.42	0.02
	MPO	10.38	0.02		MPO	10.38	0.02
	SOD3	10.38	0.02		NO2	10.38	0.02
	iNOS	10.38	0.02		SOD	10.38	0.02
EL1	CAT	5.67	0.13	EL-1	CAT	10.38	0.02
	GSR	10.38	0.02		GSR	10.42	0.02
	GSTp1	7.51	0.06		GST	10.38	0.02
	MPO	9.46	0.02		MPO	10.38	0.02
	SOD3	10.38	0.02		NO2	10.38	0.02
	iNOS	10.38	0.02		SOD	10.42	0.02
FT33	CAT	10.38	0.02	FT33	CAT	10.38	0.02
	GSR	10.38	0.02		GSR	10.42	0.02
	GSTp1	9.67	0.02		GST	10.38	0.02
	MPO	10.38	0.02		MPO	8.07	0.04
	SOD3	9.97	0.02		NO2	10.38	0.02
	iNOS	10.38	0.02		SOD	10.38	0.02
NOE	CAT	10.38	0.02	NOE	CAT	10.38	0.02
	GSR	8.95	0.03		GSR	10.38	0.02
	GSTp1	10.38	0.02		GST	10.38	0.02
	MPO	10.38	0.02		MPO	6.59	0.09
	SOD3	10.38	0.02		NO2	10.38	0.02
	iNOS	10.38	0.02		SOD	10.38	0.02
SKOV3	CAT	10.38	0.02	SKOV-3	CAT	10.38	0.02
	GSR	8.95	0.03		GSR	10.42	0.02
	GSTp1	10.38	0.02		GST	10.38	0.02
	MPO	10.38	0.02		MPO	10.42	0.02
	SOD3	10.38	0.02		NO2	10.38	0.02
	iNOS	10.38	0.02		SOD	10.38	0.02
TOV112	CAT	10.38	0.02	TOV-112	CAT	10.38	0.02
	GSR	10.38	0.02		GSR	10.46	0.02
	GSTp1	10.38	0.02		GST	10.38	0.02
	MPO	10.38	0.02		MPO	10.38	0.02
	SOD3	9.97	0.02		NO2	10.38	0.02
	iNOS	10.38	0.02		SOD	10.42	0.02

Note: The data examined were log2 transformed after adding a numeric constant ('1') to avoid negative transformed expression values; the Kruskal-Wallis test had 3 degrees of freedom. SAED000093(color)

General Linear model results PCR

PCR												Cell_Line	Marker	R-Square
Differences by exposure :		Nominal p-values				Tukey-Kramer Adjusted								
Cell_Line	Marker	i/j	i. 0 ug/ml	ii. 5 ug/m	iii. 20 ug	iv. 100 ug	i/j	i. 0 ug/ml	ii. 5 ug/m	iii. 20 ug	iv. 100 ug			
A2780	CAT	i. 0 ug/ml		0.2923	0.463	0.58	i. 0 ug/ml		0.6843	0.8654	0.9363	A2780	CAT	0.305705
A2780	CAT	ii. 5 ug/m	0.2923		0.7307	0.1268	ii. 5 ug/m	0.6843		0.9834	0.3812	A2780	GSR	0.782237
A2780	CAT	iii. 20 ug	0.463	0.7307		0.2147	iii. 20 ug	0.8654	0.9834		0.5614	A2780	GSTp1	0.946095
A2780	CAT	iv. 100 ug	0.58	0.1268	0.2147		iv. 100 ug	0.9363	0.3812	0.5614		A2780	MPO	0.983782
A2780	GSR	i. 0 ug/ml		0.0021	0.257	0.0034	i. 0 ug/ml		0.009	0.6321	0.0142	A2780	SOD3	0.989886
A2780	GSR	ii. 5 ug/m	0.0021		0.0117	0.7345	ii. 5 ug/m	0.009		0.0469	0.9841	A2780	iNOS	0.994602
A2780	GSR	iii. 20 ug	0.257	0.0117		0.02	iii. 20 ug	0.6321	0.0469		0.077	EL1	CAT	0.549452
A2780	GSR	iv. 100 ug	0.0034	0.7345	0.02		iv. 100 ug	0.0142	0.9841	0.077		EL1	GSR	0.959807
A2780	GSTp1	i. 0 ug/ml		0.0645	0.0011	<.0001	i. 0 ug/ml		0.2189	0.005	<.0001	EL1	GSTp1	0.729358
A2780	GSTp1	ii. 5 ug/m	0.0645		0.0233	<.0001	ii. 5 ug/m	0.2189		0.0886	<.0001	EL1	MPO	0.993123
A2780	GSTp1	iii. 20 ug	0.0011	0.0233		0.0003	iii. 20 ug	0.005	0.0886		0.0012	EL1	SOD3	0.996368
A2780	GSTp1	iv. 100 ug	<.0001	<.0001	0.0003		iv. 100 ug	<.0001	<.0001	0.0012		EL1	iNOS	0.99887
A2780	MPO	i. 0 ug/ml		0.0019	<.0001	<.0001	i. 0 ug/ml		0.0084	0.0001	<.0001	FT33	CAT	0.996113
A2780	MPO	ii. 5 ug/m	0.0019		0.0036	<.0001	ii. 5 ug/m	0.0084		0.0151	<.0001	FT33	GSR	0.997913
A2780	MPO	iii. 20 ug	<.0001	0.0036		<.0001	iii. 20 ug	0.0001	0.0151		<.0001	FT33	GSTp1	0.921688
A2780	MPO	iv. 100 ug	<.0001	<.0001	<.0001		iv. 100 ug	<.0001	<.0001	<.0001		FT33	MPO	0.989101
A2780	SOD3	i. 0 ug/ml		0.0002	<.0001	<.0001	i. 0 ug/ml		0.0011	<.0001	<.0001	FT33	SOD3	0.990037
A2780	SOD3	ii. 5 ug/m	0.0002		<.0001	<.0001	ii. 5 ug/m	0.0011		0.0002	<.0001	FT33	iNOS	0.998659
A2780	SOD3	iii. 20 ug	<.0001	<.0001		<.0001	iii. 20 ug	<.0001	0.0002		<.0001	NOE	CAT	0.995919
A2780	SOD3	iv. 100 ug	<.0001	<.0001	<.0001		iv. 100 ug	<.0001	<.0001	<.0001		NOE	GSR	0.919797
A2780	iNOS	i. 0 ug/ml		<.0001	<.0001	<.0001	i. 0 ug/ml		<.0001	<.0001	<.0001	NOE	GSTp1	0.99736
A2780	iNOS	ii. 5 ug/m	<.0001		<.0001	<.0001	ii. 5 ug/m	<.0001		<.0001	<.0001	NOE	MPO	0.986383
A2780	iNOS	iii. 20 ug	<.0001	<.0001		<.0001	iii. 20 ug	<.0001	<.0001		0.0002	NOE	SOD3	0.992441
A2780	iNOS	iv. 100 ug	<.0001	<.0001	<.0001		iv. 100 ug	<.0001	<.0001	0.0002		NOE	iNOS	0.997207
EL1	CAT	i. 0 ug/ml		0.7529	0.3241	0.0366	i. 0 ug/ml		0.9872	0.7265	0.1334	SKOV3	CAT	0.917328
EL1	CAT	ii. 5 ug/m	0.7529		0.2059	0.0221	ii. 5 ug/m	0.9872		0.5456	0.0844	SKOV3	GSR	0.919797
EL1	CAT	iii. 20 ug	0.3241	0.2059		0.1839	iii. 20 ug	0.7265	0.5456		0.5038	SKOV3	GSTp1	0.993049
EL1	CAT	iv. 100 ug	0.0366	0.0221	0.1839		iv. 100 ug	0.1334	0.0844	0.5038		SKOV3	MPO	0.942852
EL1	GSR	i. 0 ug/ml		0.0045	<.0001	<.0001	i. 0 ug/ml		0.0189	<.0001	<.0001	SKOV3	SOD3	0.969597
EL1	GSR	ii. 5 ug/m	0.0045		<.0001	0.0002	ii. 5 ug/m	0.0189		0.0002	0.0008	SKOV3	iNOS	0.989288
EL1	GSR	iii. 20 ug	<.0001	<.0001		0.1651	iii. 20 ug	<.0001	0.0002		0.4659	TOV112	CAT	0.967695
EL1	GSR	iv. 100 ug	<.0001	0.0002	0.1651		iv. 100 ug	<.0001	0.0008	0.4659		TOV112	GSR	0.997913
EL1	GSTp1	i. 0 ug/ml		0.0021	0.0319	0.0106	i. 0 ug/ml		0.0089	0.118	0.0427	TOV112	GSTp1	0.936306
EL1	GSTp1	ii. 5 ug/m	0.0021		0.0969	0.2799	ii. 5 ug/m	0.0089		0.3077	0.6667	TOV112	MPO	0.993337
EL1	GSTp1	iii. 20 ug	0.0319	0.0969		0.4915	iii. 20 ug	0.118	0.3077		0.8861	TOV112	SOD3	0.980254
EL1	GSTp1	iv. 100 ug	0.0106	0.2799	0.4915		iv. 100 ug	0.0427	0.6667	0.8861		TOV112	iNOS	0.992318
EL1	MPO	i. 0 ug/ml		0.2469	0.0908	<.0001	i. 0 ug/ml		0.6161	0.2917	<.0001			
EL1	MPO	ii. 5 ug/m	0.2469		0.0132	<.0001	ii. 5 ug/m	0.6161		0.0522	<.0001			
EL1	MPO	iii. 20 ug	0.0908	0.0132		<.0001	iii. 20 ug	0.2917	0.0522		<.0001			
EL1	MPO	iv. 100 ug	<.0001	<.0001	<.0001		iv. 100 ug	<.0001	<.0001	<.0001				
EL1	SOD3	i. 0 ug/ml		<.0001	<.0001	<.0001	i. 0 ug/ml		0.0003	<.0001	<.0001			
EL1	SOD3	ii. 5 ug/m	<.0001		<.0001	<.0001	ii. 5 ug/m	0.0003		<.0001	<.0001			
EL1	SOD3	iii. 20 ug	<.0001	<.0001		<.0001	iii. 20 ug	<.0001	<.0001		<.0001			
EL1	SOD3	iv. 100 ug	<.0001	<.0001	<.0001		iv. 100 ug	<.0001	<.0001	<.0001				
EL1	iNOS	i. 0 ug/ml		<.0001	<.0001	<.0001	i. 0 ug/ml		<.0001	<.0001	<.0001			
EL1	iNOS	ii. 5 ug/m	<.0001		<.0001	<.0001	ii. 5 ug/m	<.0001		<.0001	<.0001			
EL1	iNOS	iii. 20 ug	<.0001	<.0001		<.0001	iii. 20 ug	<.0001	<.0001		<.0001			
EL1	iNOS	iv. 100 ug	<.0001	<.0001	<.0001		iv. 100 ug	<.0001	<.0001	<.0001				
FT33	CAT	i. 0 ug/ml		0.0015	<.0001	<.0001	i. 0 ug/ml		0.0067	<.0001	<.0001			
FT33	CAT	ii. 5 ug/m	0.0015		0.0002	<.0001	ii. 5 ug/m	0.0067		0.0007	<.0001			
FT33	CAT	iii. 20 ug	<.0001	0.0002		<.0001	iii. 20 ug	<.0001	0.0007		<.0001			
FT33	CAT	iv. 100 ug	<.0001	<.0001	<.0001		iv. 100 ug	<.0001	<.0001	<.0001				
FT33	GSR	i. 0 ug/ml		<.0001	<.0001	<.0001	i. 0 ug/ml		<.0001	<.0001	<.0001			
FT33	GSR	ii. 5 ug/m	<.0001		<.0001	<.0001	ii. 5 ug/m	<.0001		<.0001	<.0001			
FT33	GSR	iii. 20 ug	<.0001	<.0001		0.0026	iii. 20 ug	<.0001	<.0001		0.0109			
FT33	GSR	iv. 100 ug	<.0001	<.0001	0.0026		iv. 100 ug	<.0001	<.0001	0.0109				
FT33	GSTp1	i. 0 ug/ml		0.0037	0.0003	<.0001	i. 0 ug/ml		0.0155	0.0015	<.0001			
FT33	GSTp1	ii. 5 ug/m	0.0037		0.0891	0.0006	ii. 5 ug/m	0.0155		0.2871	0.0027			
FT33	GSTp1	iii. 20 ug	0.0003	0.0891		0.0079	iii. 20 ug	0.0015	0.2871		0.0325			
FT33	GSTp1	iv. 100 ug	<.0001	0.0006	0.0079		iv. 100 ug	<.0001	0.0027	0.0325				
FT33	MPO	i. 0 ug/ml		<.0001	<.0001	<.0001	i. 0 ug/ml		0.0002	<.0001	<.0001			
FT33	MPO	ii. 5 ug/m	<.0001		<.0001	<.0001	ii. 5 ug/m	0.0002		<.0001	<.0001			
FT33	MPO	iii. 20 ug	<.0001	<.0001		0.002	iii. 20 ug	<.0001	<.0001		0.0087			
FT33	MPO	iv. 100 ug	<.0001	<.0001	0.002		iv. 100 ug	<.0001	<.0001	0.0087				
FT33	SOD3	i. 0 ug/ml		<.0001	<.0001	<.0001	i. 0 ug/ml		0.0003	<.0001	<.0001			
FT33	SOD3	ii. 5 ug/m	<.0001		0.0593	<.0001	ii. 5 ug/m	0.0003		0.2036	<.0001			
FT33	SOD3	iii. 20 ug	<.0001	0.0593		<.0001	iii. 20 ug	<.0001	0.2036		<.0001			
FT33	SOD3	iv. 100 ug	<.0001	<.0001	<.0001		iv. 100 ug	<.0001	<.0001	<.0001				
FT33	iNOS	i. 0 ug/ml		<.0001	<.0001	<.0001	i. 0 ug/ml		<.0001	<.0001	<.0001			
FT33	iNOS	ii. 5 ug/m	<.0001		<.0001	<.0001	ii. 5 ug/m	<.0001		<.0001	<.0001			

PCR

FT33	iNOS	iii. 20 ug	<.0001	<.0001		<.0001	iii. 20 ug	<.0001	<.0001		<.0001
FT33	iNOS	iv. 100 ug	<.0001	<.0001	<.0001		iv. 100 ug	<.0001	<.0001	<.0001	
NOE	CAT	i. 0 ug/ml		<.0001	<.0001	<.0001	i. 0 ug/ml		<.0001	<.0001	
NOE	CAT	ii. 5 ug/m	<.0001		<.0001	<.0001	ii. 5 ug/m	<.0001		0.0002	<.0001
NOE	CAT	iii. 20 ug	<.0001	<.0001		<.0001	iii. 20 ug	<.0001	0.0002		<.0001
NOE	CAT	iv. 100 ug	<.0001	<.0001	<.0001		iv. 100 ug	<.0001	<.0001	<.0001	
NOE	GSR	i. 0 ug/ml		0.1244	<.0001	<.0001	i. 0 ug/ml		0.3756	0.0004	0.0003
NOE	GSR	ii. 5 ug/m	0.1244		0.0005	0.0003	ii. 5 ug/m	0.3756		0.0023	0.0015
NOE	GSR	iii. 20 ug	<.0001	0.0005		0.7092	iii. 20 ug	0.0004	0.0023		0.979
NOE	GSR	iv. 100 ug	<.0001	0.0003	0.7092		iv. 100 ug	0.0003	0.0015	0.979	
NOE	GSTp1	i. 0 ug/ml		<.0001	<.0001	<.0001	i. 0 ug/ml		0.0001	<.0001	<.0001
NOE	GSTp1	ii. 5 ug/m	<.0001		<.0001	<.0001	ii. 5 ug/m	0.0001		<.0001	<.0001
NOE	GSTp1	iii. 20 ug	<.0001	<.0001		<.0001	iii. 20 ug	<.0001	<.0001		<.0001
NOE	GSTp1	iv. 100 ug	<.0001	<.0001	<.0001		iv. 100 ug	<.0001	<.0001	<.0001	
NOE	MPO	i. 0 ug/ml		<.0001	<.0001	<.0001	i. 0 ug/ml		<.0001	<.0001	<.0001
NOE	MPO	ii. 5 ug/m	<.0001		0.0005	<.0001	ii. 5 ug/m	<.0001		0.0021	<.0001
NOE	MPO	iii. 20 ug	<.0001	0.0005		<.0001	iii. 20 ug	<.0001	0.0021		0.0004
NOE	MPO	iv. 100 ug	<.0001	<.0001	<.0001		iv. 100 ug	<.0001	<.0001	0.0004	
NOE	SOD3	i. 0 ug/ml		0.0004	<.0001	<.0001	i. 0 ug/ml		0.0017	<.0001	<.0001
NOE	SOD3	ii. 5 ug/m	0.0004		<.0001	<.0001	ii. 5 ug/m	0.0017		0.0001	<.0001
NOE	SOD3	iii. 20 ug	<.0001	<.0001		<.0001	iii. 20 ug	<.0001	0.0001		<.0001
NOE	SOD3	iv. 100 ug	<.0001	<.0001	<.0001		iv. 100 ug	<.0001	<.0001	<.0001	
NOE	iNOS	i. 0 ug/ml		<.0001	<.0001	<.0001	i. 0 ug/ml		<.0001	<.0001	<.0001
NOE	iNOS	ii. 5 ug/m	<.0001		<.0001	<.0001	ii. 5 ug/m	<.0001		<.0001	<.0001
NOE	iNOS	iii. 20 ug	<.0001	<.0001		<.0001	iii. 20 ug	<.0001	<.0001		<.0001
NOE	iNOS	iv. 100 ug	<.0001	<.0001	<.0001		iv. 100 ug	<.0001	<.0001	<.0001	
SKOV3	CAT	i. 0 ug/ml		0.0304	0.002	<.0001	i. 0 ug/ml		0.1127	0.0084	<.0001
SKOV3	CAT	ii. 5 ug/m	0.0304		0.0949	0.0002	ii. 5 ug/m	0.1127		0.3024	0.0009
SKOV3	CAT	iii. 20 ug	0.002	0.0949		0.0017	iii. 20 ug	0.0084	0.3024		0.0076
SKOV3	CAT	iv. 100 ug	<.0001	0.0002	0.0017		iv. 100 ug	<.0001	0.0009	0.0076	
SKOV3	GSR	i. 0 ug/ml		0.1244	<.0001	<.0001	i. 0 ug/ml		0.3756	0.0004	0.0003
SKOV3	GSR	ii. 5 ug/m	0.1244		0.0005	0.0003	ii. 5 ug/m	0.3756		0.0023	0.0015
SKOV3	GSR	iii. 20 ug	<.0001	0.0005		0.7092	iii. 20 ug	0.0004	0.0023		0.979
SKOV3	GSR	iv. 100 ug	<.0001	0.0003	0.7092		iv. 100 ug	0.0003	0.0015	0.979	
SKOV3	GSTp1	i. 0 ug/ml		<.0001	<.0001	<.0001	i. 0 ug/ml		<.0001	<.0001	<.0001
SKOV3	GSTp1	ii. 5 ug/m	<.0001		<.0001	<.0001	ii. 5 ug/m	<.0001		<.0001	<.0001
SKOV3	GSTp1	iii. 20 ug	<.0001	<.0001		0.0004	iii. 20 ug	<.0001	<.0001		0.0016
SKOV3	GSTp1	iv. 100 ug	<.0001	<.0001	0.0004		iv. 100 ug	<.0001	<.0001	0.0016	
SKOV3	MPO	i. 0 ug/ml		0.5259	0.0162	<.0001	i. 0 ug/ml		0.908	0.0634	<.0001
SKOV3	MPO	ii. 5 ug/m	0.5259		0.0452	<.0001	ii. 5 ug/m	0.908		0.1607	<.0001
SKOV3	MPO	iii. 20 ug	0.0162	0.0452		<.0001	iii. 20 ug	0.0634	0.1607		0.0004
SKOV3	MPO	iv. 100 ug	<.0001	<.0001	<.0001		iv. 100 ug	<.0001	<.0001	0.0004	
SKOV3	SOD3	i. 0 ug/ml		0.0413	0.0002	<.0001	i. 0 ug/ml		0.1483	0.001	<.0001
SKOV3	SOD3	ii. 5 ug/m	0.0413		0.0042	<.0001	ii. 5 ug/m	0.1483		0.0177	<.0001
SKOV3	SOD3	iii. 20 ug	0.0002	0.0042		<.0001	iii. 20 ug	0.001	0.0177		0.0001
SKOV3	SOD3	iv. 100 ug	<.0001	<.0001	<.0001		iv. 100 ug	<.0001	<.0001	0.0001	
SKOV3	iNOS	i. 0 ug/ml		<.0001	<.0001	<.0001	i. 0 ug/ml		<.0001	<.0001	<.0001
SKOV3	iNOS	ii. 5 ug/m	<.0001		<.0001	<.0001	ii. 5 ug/m	<.0001		0.0001	<.0001
SKOV3	iNOS	iii. 20 ug	<.0001	<.0001		0.0005	iii. 20 ug	<.0001	0.0001		0.0022
SKOV3	iNOS	iv. 100 ug	<.0001	<.0001	0.0005		iv. 100 ug	<.0001	<.0001	0.0022	
TOV112	CAT	i. 0 ug/ml		0.1929	0.0069	<.0001	i. 0 ug/ml		0.5213	0.0285	<.0001
TOV112	CAT	ii. 5 ug/m	0.1929		0.0606	<.0001	ii. 5 ug/m	0.5213		0.2074	<.0001
TOV112	CAT	iii. 20 ug	0.0069	0.0606		<.0001	iii. 20 ug	0.0285	0.2074		<.0001
TOV112	CAT	iv. 100 ug	<.0001	<.0001	<.0001		iv. 100 ug	<.0001	<.0001	<.0001	
TOV112	GSR	i. 0 ug/ml		<.0001	<.0001	<.0001	i. 0 ug/ml		<.0001	<.0001	<.0001
TOV112	GSR	ii. 5 ug/m	<.0001		<.0001	<.0001	ii. 5 ug/m	<.0001		<.0001	<.0001
TOV112	GSR	iii. 20 ug	<.0001	<.0001		0.0026	iii. 20 ug	<.0001	<.0001		0.0109
TOV112	GSR	iv. 100 ug	<.0001	<.0001	0.0026		iv. 100 ug	<.0001	<.0001	0.0109	
TOV112	GSTp1	i. 0 ug/ml		0.1565	0.0081	<.0001	i. 0 ug/ml		0.4478	0.0332	<.0001
TOV112	GSTp1	ii. 5 ug/m	0.1565		0.0895	<.0001	ii. 5 ug/m	0.4478		0.2882	0.0001
TOV112	GSTp1	iii. 20 ug	0.0081	0.0895		0.0002	iii. 20 ug	0.0332	0.2882		0.0008
TOV112	GSTp1	iv. 100 ug	<.0001	<.0001	0.0002		iv. 100 ug	<.0001	0.0001	0.0008	
TOV112	MPO	i. 0 ug/ml		<.0001	<.0001	<.0001	i. 0 ug/ml		<.0001	<.0001	<.0001
TOV112	MPO	ii. 5 ug/m	<.0001		<.0001	<.0001	ii. 5 ug/m	<.0001		<.0001	<.0001
TOV112	MPO	iii. 20 ug	<.0001	<.0001		<.0001	iii. 20 ug	<.0001	<.0001		0.0004
TOV112	MPO	iv. 100 ug	<.0001	<.0001	<.0001		iv. 100 ug	<.0001	<.0001	0.0004	
TOV112	SOD3	i. 0 ug/ml		0.0035	0.0004	<.0001	i. 0 ug/ml		0.015	0.0019	<.0001
TOV112	SOD3	ii. 5 ug/m	0.0035		0.1329	<.0001	ii. 5 ug/m	0.015		0.3954	<.0001
TOV112	SOD3	iii. 20 ug	0.0004	0.1329		<.0001	iii. 20 ug	0.0019	0.3954		<.0001
TOV112	SOD3	iv. 100 ug	<.0001	<.0001	<.0001		iv. 100 ug	<.0001	<.0001	<.0001	
TOV112	iNOS	i. 0 ug/ml		<.0001	<.0001	<.0001	i. 0 ug/ml		<.0001	<.0001	<.0001
TOV112	iNOS	ii. 5 ug/m	<.0001		<.0001	<.0001	ii. 5 ug/m	<.0001		<.0001	<.0001
TOV112	iNOS	iii. 20 ug	<.0001	<.0001		<.0001	iii. 20 ug	<.0001	<.0001		0.0004
TOV112	iNOS	iv. 100 ug	<.0001	<.0001	<.0001		iv. 100 ug	<.0001	<.0001	0.0004	

General linear model results

ELISA

ELISA

Differences by exposure :		Nominal p-values				Tukey-Kramer Adjusted				Model fit				
Cell_line	Marker	i/j	i. 0 ug/ml	ii. 5 ug/m	iii. 20 ug	iv. 100 ug	i/j	i. 0 ug/ml	ii. 5 ug/m	iii. 20 ug	iv. 100 ug	Cell_line	Marker	R-Square
EL-1	CAT	i. 0 ug/ml		0.0029	<.0001	<.0001	i. 0 ug/ml		0.0122	<.0001	<.0001	EL-1	CAT	0.991514
EL-1	CAT	ii. 5 ug/m	0.0029		<.0001	<.0001	ii. 5 ug/m	0.0122		<.0001	<.0001	EL-1	GSR	0.998417
EL-1	CAT	iii. 20 ug	<.0001	<.0001		<.0001	iii. 20 ug	<.0001	<.0001		<.0001	EL-1	GST	0.956082
EL-1	CAT	iv. 100 ug	<.0001	<.0001	<.0001		iv. 100 ug	<.0001	<.0001	<.0001		EL-1	MPO	0.919367
EL-1	GSR	i. 0 ug/ml		<.0001	<.0001	<.0001	i. 0 ug/ml		<.0001	<.0001	<.0001	EL-1	NO2	0.986623
EL-1	GSR	ii. 5 ug/m	<.0001		<.0001	<.0001	ii. 5 ug/m	<.0001		<.0001	<.0001	EL-1	SOD	0.962855
EL-1	GSR	iii. 20 ug	<.0001	<.0001		<.0001	iii. 20 ug	<.0001	<.0001		<.0001	FT33	CAT	0.995742
EL-1	GSR	iv. 100 ug	<.0001	<.0001	<.0001		iv. 100 ug	<.0001	<.0001	<.0001		FT33	GSR	0.998022
EL-1	GST	i. 0 ug/ml		0.0053	0.0007	<.0001	i. 0 ug/ml		0.022	0.0033	<.0001	FT33	GST	0.990876
EL-1	GST	ii. 5 ug/m	0.0053		0.1761	<.0001	ii. 5 ug/m	0.022		0.4883	<.0001	FT33	MPO	0.775049
EL-1	GST	iii. 20 ug	0.0007	0.1761		<.0001	iii. 20 ug	0.0033	0.4883		0.0003	FT33	NO2	0.993174
EL-1	GST	iv. 100 ug	<.0001	<.0001	<.0001		iv. 100 ug	<.0001	<.0001	0.0003		FT33	SOD	0.994496
EL-1	MPO	i. 0 ug/ml		0.0048	0.0001	<.0001	i. 0 ug/ml		0.02	0.0006	<.0001	A2780	CAT	0.983712
EL-1	MPO	ii. 5 ug/m	0.0048		0.0184	0.0009	ii. 5 ug/m	0.02		0.0713	0.0039	A2780	GSR	0.996929
EL-1	MPO	iii. 20 ug	0.0001	0.0184		0.06	iii. 20 ug	0.0006	0.0713		0.2059	A2780	GST	0.967063
EL-1	MPO	iv. 100 ug	<.0001	0.0009	0.06		iv. 100 ug	<.0001	0.0039	0.2059		A2780	MPO	0.960296
EL-1	NO2	i. 0 ug/ml		0.0002	<.0001	<.0001	i. 0 ug/ml		0.0008	<.0001	<.0001	A2780	NO2	0.920775
EL-1	NO2	ii. 5 ug/m	0.0002		<.0001	<.0001	ii. 5 ug/m	0.0008		<.0001	<.0001	A2780	SOD	0.96559
EL-1	NO2	iii. 20 ug	<.0001	<.0001		0.015	iii. 20 ug	<.0001	<.0001		0.0589	NOE	CAT	0.994361
EL-1	NO2	iv. 100 ug	<.0001	<.0001	0.015		iv. 100 ug	<.0001	<.0001	0.0589		NOE	GSR	0.997561
EL-1	SOD	i. 0 ug/ml		0.0004	<.0001	<.0001	i. 0 ug/ml		0.0016	<.0001	<.0001	NOE	GST	0.956404
EL-1	SOD	ii. 5 ug/m	0.0004		0.0008	<.0001	ii. 5 ug/m	0.0016		0.0037	0.0004	NOE	MPO	0.558204
EL-1	SOD	iii. 20 ug	<.0001	0.0008		0.0745	iii. 20 ug	<.0001	0.0037		0.2475	NOE	NO2	0.996977
EL-1	SOD	iv. 100 ug	<.0001	<.0001	0.0745		iv. 100 ug	<.0001	0.0004	0.2475		NOE	SOD	0.983272
FT33	CAT	i. 0 ug/ml		0.0003	<.0001	<.0001	i. 0 ug/ml		0.0016	<.0001	<.0001	SKOV-3	CAT	0.977149
FT33	CAT	ii. 5 ug/m	0.0003		<.0001	<.0001	ii. 5 ug/m	0.0016		<.0001	<.0001	SKOV-3	GSR	0.997431
FT33	CAT	iii. 20 ug	<.0001	<.0001		<.0001	iii. 20 ug	<.0001	<.0001		<.0001	SKOV-3	GST	0.97881
FT33	CAT	iv. 100 ug	<.0001	<.0001	<.0001		iv. 100 ug	<.0001	<.0001	<.0001		SKOV-3	MPO	0.999482
FT33	GSR	i. 0 ug/ml		<.0001	<.0001	<.0001	i. 0 ug/ml		<.0001	<.0001	<.0001	SKOV-3	NO2	0.995148
FT33	GSR	ii. 5 ug/m	<.0001		<.0001	<.0001	ii. 5 ug/m	<.0001		<.0001	<.0001	SKOV-3	SOD	0.978235
FT33	GSR	iii. 20 ug	<.0001	<.0001		<.0001	iii. 20 ug	<.0001	<.0001		<.0001	TOV-112	CAT	0.991059
FT33	GSR	iv. 100 ug	<.0001	<.0001	<.0001		iv. 100 ug	<.0001	<.0001	<.0001		TOV-112	GSR	0.997237
FT33	GST	i. 0 ug/ml		0.0001	<.0001	<.0001	i. 0 ug/ml		0.0006	<.0001	<.0001	TOV-112	GST	0.975344
FT33	GST	ii. 5 ug/m	0.0001		0.0002	<.0001	ii. 5 ug/m	0.0006		0.0008	<.0001	TOV-112	MPO	0.990375
FT33	GST	iii. 20 ug	<.0001	0.0002		<.0001	iii. 20 ug	<.0001	0.0008		<.0001	TOV-112	NO2	0.970334
FT33	GST	iv. 100 ug	<.0001	<.0001	<.0001		iv. 100 ug	<.0001	<.0001	<.0001		TOV-112	SOD	0.988387
FT33	MPO	i. 0 ug/ml		0.003	0.4263	0.0041	i. 0 ug/ml		0.0129	0.8352	0.0173			
FT33	MPO	ii. 5 ug/m	0.003		0.01	0.8308	ii. 5 ug/m	0.0129		0.0405	0.9959			
FT33	MPO	iii. 20 ug	0.4263	0.01		0.014	iii. 20 ug	0.8352	0.0405		0.0552			
FT33	MPO	iv. 100 ug	0.0041	0.8308	0.014		iv. 100 ug	0.0173	0.9959	0.0552				
FT33	NO2	i. 0 ug/ml		<.0001	<.0001	<.0001	i. 0 ug/ml		<.0001	<.0001	<.0001			
FT33	NO2	ii. 5 ug/m	<.0001		<.0001	<.0001	ii. 5 ug/m	<.0001		<.0001	<.0001			
FT33	NO2	iii. 20 ug	<.0001	<.0001		0.0366	iii. 20 ug	<.0001	<.0001		0.1334			
FT33	NO2	iv. 100 ug	<.0001	<.0001	0.0366		iv. 100 ug	<.0001	<.0001	0.1334				
FT33	SOD	i. 0 ug/ml		<.0001	<.0001	<.0001	i. 0 ug/ml		<.0001	<.0001	<.0001			
FT33	SOD	ii. 5 ug/m	<.0001		<.0001	<.0001	ii. 5 ug/m	<.0001		<.0001	<.0001			
FT33	SOD	iii. 20 ug	<.0001	<.0001		<.0001	iii. 20 ug	<.0001	<.0001		0.0001			
FT33	SOD	iv. 100 ug	<.0001	<.0001	<.0001		iv. 100 ug	<.0001	<.0001	0.0001				
A2780	CAT	i. 0 ug/ml		0.1307	<.0001	<.0001	i. 0 ug/ml		0.3904	<.0001	<.0001			
A2780	CAT	ii. 5 ug/m	0.1307		<.0001	<.0001	ii. 5 ug/m	0.3904		0.0004	<.0001			
A2780	CAT	iii. 20 ug	<.0001	<.0001		<.0001	iii. 20 ug	<.0001	0.0004		<.0001			
A2780	CAT	iv. 100 ug	<.0001	<.0001	<.0001		iv. 100 ug	<.0001	<.0001	<.0001				
A2780	GSR	i. 0 ug/ml		0.0002	<.0001	<.0001	i. 0 ug/ml		0.0011	<.0001	<.0001			
A2780	GSR	ii. 5 ug/m	0.0002		<.0001	<.0001	ii. 5 ug/m	0.0011		<.0001	<.0001			
A2780	GSR	iii. 20 ug	<.0001	<.0001		<.0001	iii. 20 ug	<.0001	<.0001		<.0001			
A2780	GSR	iv. 100 ug	<.0001	<.0001	<.0001		iv. 100 ug	<.0001	<.0001	<.0001				
A2780	GST	i. 0 ug/ml		0.033	<.0001	<.0001	i. 0 ug/ml		0.1216	0.0004	<.0001			
A2780	GST	ii. 5 ug/m	0.033		0.0018	<.0001	ii. 5 ug/m	0.1216		0.0079	<.0001			
A2780	GST	iii. 20 ug	<.0001	0.0018		<.0001	iii. 20 ug	0.0004	0.0079		0.0005			
A2780	GST	iv. 100 ug	<.0001	<.0001	<.0001		iv. 100 ug	<.0001	<.0001	0.0005				
A2780	MPO	i. 0 ug/ml		0.0002	<.0001	<.0001	i. 0 ug/ml		0.0009	<.0001	<.0001			
A2780	MPO	ii. 5 ug/m	0.0002		0.0032	0.0002	ii. 5 ug/m	0.0009		0.0136	0.0008			
A2780	MPO	iii. 20 ug	<.0001	0.0032		0.0457	iii. 20 ug	<.0001	0.0136		0.1624			
A2780	MPO	iv. 100 ug	<.0001	0.0002	0.0457		iv. 100 ug	<.0001	0.0008	0.1624				
A2780	NO2	i. 0 ug/ml		0.0436	0.0015	<.0001	i. 0 ug/ml		0.1557	0.0065	<.0001			
A2780	NO2	ii. 5 ug/m	0.0436		0.0477	0.0001	ii. 5 ug/m	0.1557		0.1687	0.0006			
A2780	NO2	iii. 20 ug	0.0015	0.0477		0.002	iii. 20 ug	0.0065	0.1687		0.0086			
A2780	NO2	iv. 100 ug	<.0001	0.0001	0.002		iv. 100 ug	<.0001	0.0006	0.0086				
A2780	SOD	i. 0 ug/ml		0.0489	<.0001	<.0001	i. 0 ug/ml		0.1724	<.0001	<.0001			
A2780	SOD	ii. 5 ug/m	0.0489		0.0001	<.0001	ii. 5 ug/m	0.1724		0.0006	<.0001			

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A2780	SOD	iii. 20 ug	<.0001	0.0001	—	0.0035	iii. 20 ug	<.0001	0.0006	—	0.0149
A2780	SOD	iv. 100 ug	<.0001	<.0001	0.0035	—	iv. 100 ug	<.0001	<.0001	0.0149	—
NOE	CAT	i. 0 ug/ml	—	<.0001	<.0001	<.0001	i. 0 ug/ml	—	0.0003	<.0001	<.0001
NOE	CAT	ii. 5 ug/m	<.0001	—	<.0001	<.0001	ii. 5 ug/m	0.0003	—	<.0001	<.0001
NOE	CAT	iii. 20 ug	<.0001	<.0001	—	<.0001	iii. 20 ug	<.0001	<.0001	—	<.0001
NOE	CAT	iv. 100 ug	<.0001	<.0001	<.0001	—	iv. 100 ug	<.0001	<.0001	<.0001	—
NOE	GSR	i. 0 ug/ml	—	<.0001	<.0001	<.0001	i. 0 ug/ml	—	<.0001	<.0001	<.0001
NOE	GSR	ii. 5 ug/m	<.0001	—	<.0001	<.0001	ii. 5 ug/m	<.0001	—	<.0001	<.0001
NOE	GSR	iii. 20 ug	<.0001	<.0001	—	<.0001	iii. 20 ug	<.0001	<.0001	—	<.0001
NOE	GSR	iv. 100 ug	<.0001	<.0001	<.0001	—	iv. 100 ug	<.0001	<.0001	<.0001	—
NOE	GST	i. 0 ug/ml	—	0.0086	0.0001	<.0001	i. 0 ug/ml	—	0.0349	0.0005	<.0001
NOE	GST	ii. 5 ug/m	0.0086	—	0.0065	<.0001	ii. 5 ug/m	0.0349	—	0.0268	<.0001
NOE	GST	iii. 20 ug	0.0001	0.0065	—	0.0005	iii. 20 ug	0.0005	0.0268	—	0.0024
NOE	GST	iv. 100 ug	<.0001	<.0001	0.0005	—	iv. 100 ug	<.0001	<.0001	0.0024	—
NOE	MPO	i. 0 ug/ml	—	0.0152	0.0907	0.0579	i. 0 ug/ml	—	0.0597	0.2915	0.1994
NOE	MPO	ii. 5 ug/m	0.0152	—	0.282	0.4129	ii. 5 ug/m	0.0597	—	0.6697	0.8231
NOE	MPO	iii. 20 ug	0.0907	0.282	—	0.7793	iii. 20 ug	0.2915	0.6697	—	0.9909
NOE	MPO	iv. 100 ug	0.0579	0.4129	0.7793	—	iv. 100 ug	0.1994	0.8231	0.9909	—
NOE	NO2	i. 0 ug/ml	—	<.0001	<.0001	<.0001	i. 0 ug/ml	—	<.0001	<.0001	<.0001
NOE	NO2	ii. 5 ug/m	<.0001	—	<.0001	<.0001	ii. 5 ug/m	<.0001	—	<.0001	<.0001
NOE	NO2	iii. 20 ug	<.0001	<.0001	—	<.0001	iii. 20 ug	<.0001	<.0001	—	<.0001
NOE	NO2	iv. 100 ug	<.0001	<.0001	<.0001	—	iv. 100 ug	<.0001	<.0001	<.0001	—
NOE	SOD	i. 0 ug/ml	—	0.0016	<.0001	<.0001	i. 0 ug/ml	—	0.0071	<.0001	<.0001
NOE	SOD	ii. 5 ug/m	0.0016	—	<.0001	<.0001	ii. 5 ug/m	0.0071	—	<.0001	<.0001
NOE	SOD	iii. 20 ug	<.0001	<.0001	—	0.0099	iii. 20 ug	<.0001	<.0001	—	0.0401
NOE	SOD	iv. 100 ug	<.0001	<.0001	0.0099	—	iv. 100 ug	<.0001	<.0001	0.0401	—
SKOV-3	CAT	i. 0 ug/ml	—	0.0038	0.0001	<.0001	i. 0 ug/ml	—	0.0162	0.0006	<.0001
SKOV-3	CAT	ii. 5 ug/m	0.0038	—	0.0241	<.0001	ii. 5 ug/m	0.0162	—	0.0913	<.0001
SKOV-3	CAT	iii. 20 ug	0.0001	0.0241	—	<.0001	iii. 20 ug	0.0006	0.0913	—	<.0001
SKOV-3	CAT	iv. 100 ug	<.0001	<.0001	<.0001	—	iv. 100 ug	<.0001	<.0001	<.0001	—
SKOV-3	GSR	i. 0 ug/ml	—	<.0001	<.0001	<.0001	i. 0 ug/ml	—	<.0001	<.0001	<.0001
SKOV-3	GSR	ii. 5 ug/m	<.0001	—	0.0002	<.0001	ii. 5 ug/m	<.0001	—	0.0008	<.0001
SKOV-3	GSR	iii. 20 ug	<.0001	0.0002	—	<.0001	iii. 20 ug	<.0001	0.0008	—	<.0001
SKOV-3	GSR	iv. 100 ug	<.0001	<.0001	<.0001	—	iv. 100 ug	<.0001	<.0001	<.0001	—
SKOV-3	GST	i. 0 ug/ml	—	0.0042	<.0001	<.0001	i. 0 ug/ml	—	0.0175	<.0001	<.0001
SKOV-3	GST	ii. 5 ug/m	0.0042	—	0.0011	<.0001	ii. 5 ug/m	0.0175	—	0.0047	<.0001
SKOV-3	GST	iii. 20 ug	<.0001	0.0011	—	<.0001	iii. 20 ug	<.0001	0.0047	—	<.0001
SKOV-3	GST	iv. 100 ug	<.0001	<.0001	<.0001	—	iv. 100 ug	<.0001	<.0001	<.0001	—
SKOV-3	MPO	i. 0 ug/ml	—	<.0001	<.0001	<.0001	i. 0 ug/ml	—	<.0001	<.0001	<.0001
SKOV-3	MPO	ii. 5 ug/m	<.0001	—	<.0001	<.0001	ii. 5 ug/m	<.0001	—	<.0001	<.0001
SKOV-3	MPO	iii. 20 ug	<.0001	<.0001	—	<.0001	iii. 20 ug	<.0001	<.0001	—	<.0001
SKOV-3	MPO	iv. 100 ug	<.0001	<.0001	<.0001	—	iv. 100 ug	<.0001	<.0001	<.0001	—
SKOV-3	NO2	i. 0 ug/ml	—	<.0001	<.0001	<.0001	i. 0 ug/ml	—	0.0004	<.0001	<.0001
SKOV-3	NO2	ii. 5 ug/m	<.0001	—	<.0001	<.0001	ii. 5 ug/m	0.0004	—	<.0001	<.0001
SKOV-3	NO2	iii. 20 ug	<.0001	<.0001	—	<.0001	iii. 20 ug	<.0001	<.0001	—	<.0001
SKOV-3	NO2	iv. 100 ug	<.0001	<.0001	<.0001	—	iv. 100 ug	<.0001	<.0001	<.0001	—
SKOV-3	SOD	i. 0 ug/ml	—	0.0006	<.0001	<.0001	i. 0 ug/ml	—	0.0027	<.0001	<.0001
SKOV-3	SOD	ii. 5 ug/m	0.0006	—	0.0002	<.0001	ii. 5 ug/m	0.0027	—	0.001	<.0001
SKOV-3	SOD	iii. 20 ug	<.0001	0.0002	—	0.0003	iii. 20 ug	<.0001	0.001	—	0.0013
SKOV-3	SOD	iv. 100 ug	<.0001	<.0001	0.0003	—	iv. 100 ug	<.0001	<.0001	0.0013	—
TOV-112	CAT	i. 0 ug/ml	—	0.0004	<.0001	<.0001	i. 0 ug/ml	—	0.0018	<.0001	<.0001
TOV-112	CAT	ii. 5 ug/m	0.0004	—	<.0001	<.0001	ii. 5 ug/m	0.0018	—	<.0001	<.0001
TOV-112	CAT	iii. 20 ug	<.0001	<.0001	—	<.0001	iii. 20 ug	<.0001	<.0001	—	<.0001
TOV-112	CAT	iv. 100 ug	<.0001	<.0001	<.0001	—	iv. 100 ug	<.0001	<.0001	<.0001	—
TOV-112	GSR	i. 0 ug/ml	—	<.0001	<.0001	<.0001	i. 0 ug/ml	—	<.0001	<.0001	<.0001
TOV-112	GSR	ii. 5 ug/m	<.0001	—	<.0001	<.0001	ii. 5 ug/m	<.0001	—	<.0001	<.0001
TOV-112	GSR	iii. 20 ug	<.0001	<.0001	—	<.0001	iii. 20 ug	<.0001	<.0001	—	<.0001
TOV-112	GSR	iv. 100 ug	<.0001	<.0001	<.0001	—	iv. 100 ug	<.0001	<.0001	<.0001	—
TOV-112	GST	i. 0 ug/ml	—	0.0051	<.0001	<.0001	i. 0 ug/ml	—	0.0212	<.0001	<.0001
TOV-112	GST	ii. 5 ug/m	0.0051	—	0.0002	<.0001	ii. 5 ug/m	0.0212	—	0.001	<.0001
TOV-112	GST	iii. 20 ug	<.0001	0.0002	—	0.0002	iii. 20 ug	<.0001	0.001	—	0.001
TOV-112	GST	iv. 100 ug	<.0001	<.0001	0.0002	—	iv. 100 ug	<.0001	<.0001	0.001	—
TOV-112	MPO	i. 0 ug/ml	—	<.0001	<.0001	<.0001	i. 0 ug/ml	—	<.0001	<.0001	<.0001
TOV-112	MPO	ii. 5 ug/m	<.0001	—	0.0006	<.0001	ii. 5 ug/m	<.0001	—	0.0025	<.0001
TOV-112	MPO	iii. 20 ug	<.0001	0.0006	—	<.0001	iii. 20 ug	<.0001	0.0025	—	<.0001
TOV-112	MPO	iv. 100 ug	<.0001	<.0001	<.0001	—	iv. 100 ug	<.0001	<.0001	<.0001	—
TOV-112	NO2	i. 0 ug/ml	—	<.0001	0.0007	<.0001	i. 0 ug/ml	—	<.0001	0.0029	<.0001
TOV-112	NO2	ii. 5 ug/m	<.0001	—	0.0057	0.0002	ii. 5 ug/m	<.0001	—	0.0239	0.0008
TOV-112	NO2	iii. 20 ug	0.0007	0.0057	—	<.0001	iii. 20 ug	0.0029	0.0239	—	<.0001
TOV-112	NO2	iv. 100 ug	<.0001	0.0002	<.0001	—	iv. 100 ug	<.0001	0.0008	<.0001	—
TOV-112	SOD	i. 0 ug/ml	—	<.0001	<.0001	<.0001	i. 0 ug/ml	—	0.0003	<.0001	<.0001
TOV-112	SOD	ii. 5 ug/m	<.0001	—	<.0001	<.0001	ii. 5 ug/m	0.0003	—	<.0001	<.0001
TOV-112	SOD	iii. 20 ug	<.0001	<.0001	—	0.0006	iii. 20 ug	<.0001	<.0001	—	0.0025
TOV-112	SOD	iv. 100 ug	<.0001	<.0001	0.0006	—	iv. 100 ug	<.0001	<.0001	0.0025	—